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BUILDING AND THE CRISIS

THE Prime Minister, in his grim statement last week on the nation's economic position and the steps which it is proposed to take to deal with it, made few direct references to the building industry, and those which he did make were in the most general of terms.

"There will have to be," he said, "a re-deployment and retiming, including some postponement, of our general building programme. This must be done so as to give first place to the building of homes for miners, agricultural workers and other key workers. I appeal to workers in all industries and employments not to press at this time for increases of wages or changes in conditions which would have a similar effect. . . ."

Earlier in his speech, referring to measures which it is proposed to take to aid our recovery, he said : "First, we shall apply ourselves to the further re-deployment of our resources at home. We must concentrate as much of those resources as we can on the reconstruction and development of our basic industries and services on which the whole of our economy depends ; on production of goods for export and on the production of all those things which save us imports. This will mean cutting out unessentials and making sure that our objectives are in proper relation to our resources." The one definite statement in his speech was that the Government proposes to cut imports of timber by £10 million—"not on the very low level of supplies we were able to import until recently, but on the considerably higher level which we had been hoping to reach"—but precisely what that means it is difficult to say without much fuller information. In any case, why make so comparatively trivial a saving in a material so urgently needed for housing and the export trade?

It is difficult to gain from these vague generalisations any clear idea of the Government's intentions towards the building industry. Rumour, as is to be expected, is already busily at work. For example, it is said that there is to be a reduction of 80,000 houses in the immediate housing programme ; school building and hospital building are to be postponed; factory building for the non-export trades is to be temporarily stopped, and so forth.

This state of uncertainty must further retard progress in an industry which, already lethargic, is having its attention closely engaged by negotiations over the Minister of Labour's recent suggestion of an increase of 3d. per hour in craftsmen's rates, subject to the acceptance of a system of incentives. It is difficult to reconcile the Prime Minister's appeal to all workers "not to press at this time for increases of wages or changes in conditions which would have similar effect" with its approval of such a policy for building. Everyone will hope that this proposal, if accepted by the industry, will produce the much-needed increase in production, as it almost certainly would do in an expanding home market. The effect of an incentives system now that there is likely to be a falling off in work owing to the "re-deployment and retiming" of the building programme, together with fewer consumer goods on which to spend increased earnings, remains to be seen.

"Re-deployment" has a military ring to it, suggesting the orderly moving about of large formations of highly disciplined men to meet some new development in the course of a battle. It has little real relation to the building industry, which, though large in the aggregate, is spread unevenly over the country and consists of many thousands of firms varying in size and capability. To re-deploy any large part of this heterogeneous "army" is a complex and delicate operation, less like a military movement than the pulling up of plants by the roots and transplanting them in alien soil. The provision of living accommodation, services and amenities in the selected areas for re-deployment is in itself a major preliminary operation. It is to be hoped, therefore, that re-deployment, which is bound to involve dislocation, create unemployment and retard production, will be kept to an absolute minimum.

Re-deployment raises many questions of conflicting importance. What, for example, is to happen to the numerous undertakings in progress which now fall to a low priority? Are they to be abandoned, with all the waste of labour and capital investment involved and accompanying loss to the community? Are they to be finished and so delay the re-deployment of the labour engaged upon them? Housing itself, at least in what must now be regarded as non-priority areas, offers a serious example of the problem. According to the latest Housing Report, referred to on another page, the figure of 202,000 unfinished houses at the beginning of the year has now increased against expectation to 242,000. What is to be done about this? The whole position with regard to work under construction needs to be clarified without delay.

The interests of the nation are paramount, and no responsible person in the industry would wish to impede the Government in taking whatever action may be necessary to restore the nation to economic health and stability. All necessary sacrifices and hardships will be accepted, but the industry and the nation will need to be satisfied that they are necessary and are not dictated arbitrarily or by panic action.

What the Government must do as soon as possible is to determine its priorities and keep to them. The industry, more than bewildered already by controls, shortages, wage negotiations and changes of policy, must know without any unnecessary delay where it stands if it is to make, with the maximum efficiency, the great contribution which it can make towards national recovery.

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Away from It All.

AFTER A WEEK of bludgeonings at the hands of the Government, and in particular by Hugh (you can't take it with you) Dalton, we staggered for any sort of mental refreshment into the Academy Cinema in Oxford-street, and with heads if not bloody then certainly bowed, witnessed the latest interpretation on the screen of one of Pierre Loti's novels, "Ramuntcho." Any film about the Basque country is usually worth seeing for its scenic value alone, for that little corner between France and Spain leading to the foothills of the Pyrenees holds a charm which, to all who have visited it, is hard to resist.

Towns like Bayonne, Biarritz and St. Jean-de-Luz have a definite flavour of their own, possibly on account of their proximity to Spain, for Spanish influence is especially pervasive upon the French scene, although curiously this does not happen in the case of the Spanish towns over the border. Bayonne, with its famous bull-ring, is an ancient and attractive town; Biarritz, of course, is famous for its Edwardian opulence; and perhaps St. Jean-de-Luz's chief claim to fame, from the architectural viewpoint, is Rob Mallet-Stevens's Casino, a building which caused a considerable stir in the architectural circles of the late 'twenties. As we have not visited St. Jean for many years now, we rather wonder how this once so diverting piece of entertainment architecture is wearing.

The seaboard frontier of France and Spain is formed by the River Bidassoa; on the French side is Hendaye—a typical little French frontier town—and on the other Irun, which immediately conveys the remarkable colour of the Spanish scene. San Sebastian, farther down the Spanish coast, with its lovely "concha," never fails to cast that extraordinary spell over the visitor from England—a spell composed partly of the singular beauty of the baroque architecture, which is later found in such profusion at Burgos and Valladolid. But it is in the Basque scene that "Ramuntcho" excels—the little white villages, so sun-baked in the summer, and the charming churches, a scene not perhaps achieving the miracle of its counterpart in Italy, but nevertheless holding an attraction particularly its own.

May we be forgiven this little nostalgic dissertation? We know only too well that the hard-faced critics describe escapism as weakness, but we feel that even they, deep down, would prefer to spend an evening at St. Jean watching a pelota game, than at a dirt-track!

Art and the Prefab.

A CORRESPONDENT writes :—

August being the English holiday month, and your correspondent brimming with gemütlich, bonhomie, and an almost incredible measure of insouciance, found that even his pet allergy, viz., little books on prefabrication, had lost a great deal of its intensity. The latest to hit the market has been called, somewhat insinuatingly, "Your Home," and is by Sir Francis Rose, Bart. The author is a painter who has interested himself in this development of architecture, but except for a few rather bizarre suggestions on the subject of colour ("I suggest a bold design for the dining kitchen of large frying pans filled with fried eggs and tied together with big bows"!) he hardly adds anything to this subject. In a surprisingly ingenious preface Lord Strabolgi says things like "Why should temporary dwellings be ugly? We have wonderful new materials, plastics and aluminium, to work on," and straightway sets the poser—are these little buildings ugly or just not what we have been accustomed to think of as homes? The preface ends with: "The author shows the part the artist can play in *grafting* beauty on the achievements of an industrial system used for the benefit of the whole community. So can we build Jerusalem in England's green and pleasant land." (We must add quickly that the preface was written in 1945, so no one can be blamed for not foreseeing certain political events.) However, we can almost see the "organic" boys wincing at the word "grafting."

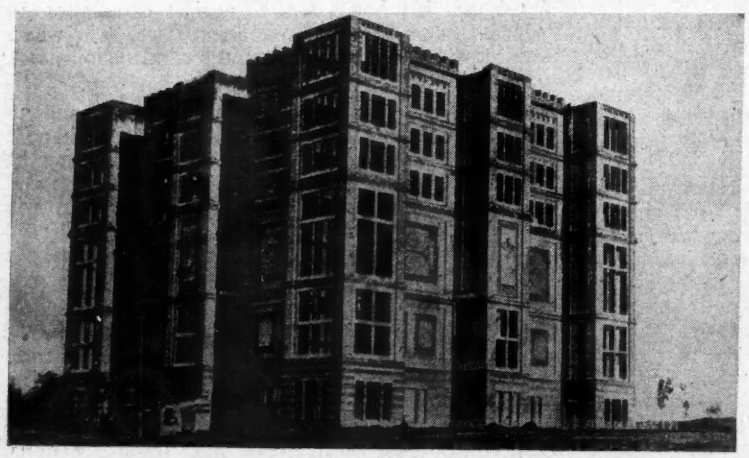
A Master Plan for Glasgow?

A WORKING GROUP of the Department of Health and Glasgow Corporation planning specialists to carry out a fact-finding survey which would be the basis of a master plan for Glasgow was suggested by the Rt. Hon. Joseph Westwood, M.P., Secretary of State for Scotland, at a meeting with representatives of the Corporation in the City Chambers on August 8. The suggestion will be considered by Glasgow Corporation, and an answer is expected shortly. Mr. Westwood was meeting members of Glasgow's Housing and Planning Committees to discuss the standards of planning which the Corporation are applying to their major new developments throughout the city, particularly their large new housing schemes. These standards raised a number of controversial questions, and it was, he said, obviously undesirable that the Corporation should proceed with preparations and plans in accordance with general standards that he might find it difficult, and in some cases impossible, to accept when he received the detailed scheme. The work of the group, he said, would be mainly of a fact-finding nature, and it was not suggested that any recommendations they made could necessarily bind either the Corporation or himself on large issues of policy. Their work, however, if carried out in a co-operative spirit, would help a great deal in clearing the ground and in reconciling differences of view, and would save a deal of time and trouble and possibly wasted effort in the future, both on the part of the Corporation themselves and of his Department.

Jezreel's Temple.

SOMEWHERE around last summer we suggested that an amusing pastime on holiday would be the recovery of unsung works of architecture. This picture of Jezreel's Temple near Gillingham has been sent to us, and we are rather taken aback that such a very large structure is in existence, and has never, so far as we are aware, aroused much interest.

Our scant information tells us that it was built about a hundred years ago by a religious sect known as the Jezreelites, who had ideas that they were going to build it up to Heaven. However, the sect was disbanded, and the building also. No floors were built, and should the intention have been merely to have the four external walls, the design can hardly be called functional. It has been listed by John Betjeman as a "folly," and on this point we would certainly not contradict him. However, it is amusing and diverting, and perhaps some of our readers can give us further information.



Jezreel's Temple, New Brompton. (See Note.)

Crawley New Town Architect.

MR. ALWYN G. SHEPPARD FIDLER, M.A., B.Arch., A.R.I.B.A., A.M.T.P.I., Dipl.C.D., R.S., has been appointed by the Crawley Development Corporation as Chief Architect to design the New Town of Crawley, Sussex. Trained under Professor Sir Charles Reilly at the School of Architecture, University of Liverpool, Mr. Sheppard Fidler graduated with First Class Honours, winning both the Rome Scholarship in Architecture and the Victory Scholarship of the R.I.B.A. He studied in Italy for two years and travelled widely in Europe and the U.S.A.

Mr. Sheppard Fidler is also a qualified

MR. A. G. SHEPPARD FIDLER, appointed Architect for New Town of Crawley, Sussex. (See Note.)

Town Planner and an M.A. of Liverpool University. He was Chief Architect to the Land Settlement Association before becoming Architect and Technical Adviser to Barclays Bank Ltd. During the war he was seconded to the Research and Experiments Department of the Ministry of Home Security for special research work.

Colombo Cathedral Designs.

THE winning and other designs entered in the competition for the proposed Cathedral of the Holy Cross, Colombo, Ceylon, will be exhibited at the Royal Society of Arts, 6-8, John Adam-street, Adelphi, London, W.C.2, from Monday, August 25, to Saturday, August 30, inclusive. The exhibition will be open, free of charge, on Monday to Friday from 9.30 a.m. to 5.30 p.m. and on Saturday from 9.30 a.m. to 12.30 p.m.

Royal Visit to Civil Engineers.

H.R.H. THE PRINCESS ELIZABETH visited the Institution of Civil Engineers on Wednesday, July 30, to receive the diploma of her Honorary Membership, to which she had been elected recently, and signed the roll of honorary members. She was welcomed by Sir William Halcrow (President), Sir Roger Hetherington (President-elect), Sir John Thornycroft and Sir Peirson Frank (past-presidents), and Dr. E. J. Hamlin (South Africa) and Mr. W. H. Morgan, representing the Council.

The association between the Royal Family and the Institution, which originated in the election of the Prince Consort in 1843, and which has been continued since 1865 by the election of each successive heir to the throne, is thus maintained.

Housing in Tours.

A CORRESPONDENT writes: "While in Tours recently I had the opportunity of visiting a number of housing schemes under the guidance of M. Dinzart, who is the chief departmental representative in Touraine of the Ministry of Reconstruction. There has been a great deal of destruction by Allied bombing in Tours. The new housing estates now being rapidly built have several features of interest to British architects and builders. The construction of the houses is very solid, the fullest use possible being made of local stone. The staircases are made of oak, cut in neighbouring forests, but the windows and doors have been manufactured by German carpenters, who have used timber from the Black Forest. The houses are larger than the Council houses now being built in Great Britain. Many contain a good-sized lounge hall, a living-room, a small kitchen and a downstairs shower bath. Upstairs there are three or four bedrooms and a bathroom. These houses are specially designed for railway engine drivers, permanent-way men, firemen, signalmen and other railway employees who work in Tours, which is an important railway junction. Very small gardens are attached to each house, but within a hundred yards of each estate there are several acres of allotment gardens. The view taken is that all men are not fond of gardening, and that it is better to use all available land for those who wished to grow their own vegetables and flowers.

"It was a sunny day in June when I went round these housing estates, and I asked what hours the men were working. The architect in charge, M. Boille, told me that during the hot weather the men, at their own request, had started at 4.30 a.m. and continued working until 12.30 p.m. In this way they escaped the heat of the day. He paid a very warm tribute to the way the operatives were working and to their magnificent output. The men in many cases had been prisoners-of-war in Germany. Some had learned in Germany the value of mechanical devices in house building, and were operating cranes driven by petrol and others machines, so as to save labour and to accelerate progress. The architect told me that some 70 houses on one estate were begun last April and would be completed and occupied by the middle of August."

COMING EVENTS

Friday, August 15.

TIMBER DEVELOPMENT ASSOCIATION. Instructors' Course. Cambridge University. (Continuing until Saturday, August 23.)

Saturday, August 16.

B.B.C. (THIRD PROGRAMME). Mr. John Summerson and Mr. H. S. Goodhart-Rendel on "Wren's City Churches." 10.15-10.45 p.m.

Wednesday, August 20.

SOUTH-EASTERN SOCIETY OF ARCHITECTS (Tunbridge Wells Chapter, Maidstone Group). Mr. J. C. Browne on "Paint." Maidstone Technical Institute. 7 p.m.

Industry and Minister's Proposals.

THE following statement was issued after a meeting between representatives of the executives of employers and operatives in the building industry:—

"At a meeting (Wednesday, August 6) between representatives of the executives of employers and operatives in the building industry, the employers undertook to place before their national council for favourable consideration the suggestions which were put forward by the Minister of Labour on July 17 and which are being submitted by the operatives' committee to a ballot of their members. In the course of discussion an understanding was reached on various other matters which would appropriately form part of any settlement."

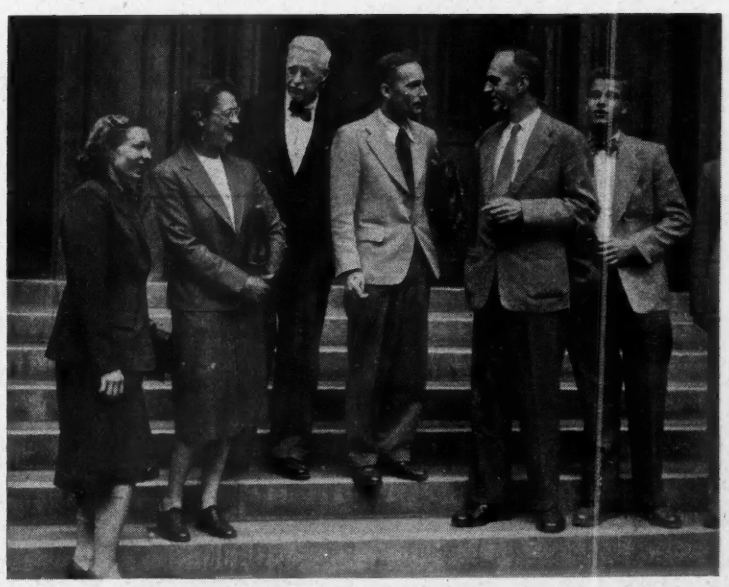
Professional Announcement.

MR. A. F. WATSON, A.R.I.B.A, architect to British European Airways, has moved his offices from Northolt to No. 10, Hill-street, Mayfair, W.1, where he will be pleased to receive trade catalogues and representatives.

From *The Builder* of 1847

Saturday, August 14, 1847.

THE WINDOW TAX AND THE TAX ON BRICK. It so happens that those two taxes, which are so highly obnoxious to a free disposal of architectural and constructive detail for the promotion of the health of towns, are equally obnoxious to the same free disposal of detail for the promotion of architectural beauty in building itself. . . . It would become none so well, therefore, as architects and builders, to take the initiative in some specific and determined measure for the purpose of sweeping away these obnoxious taxes at once, during the *highly opportune moment* of time when preliminary measures are about to be taken for the cleansing of the nation's Augean stable. . . .



AMERICAN AND EMPIRE ARCHITECTS VISIT LONDON. A group of American and Empire architects and planners who are visiting this country under the auspices of a World Study tour visited the County Hall last week as the guests of the London County Council. Left to right are: Miss Mary Imrie and Miss Joan Wallbridge, Edmonton, Canada; Mr. Frank Howard, Boston, Mass., U.S.A.; Mr. Herman Field, New York; Mr. Carey, New York; and Mr. Henry Cobb, Boston, Mass., U.S.A.

BRITISH COLONIAL ARCHITECTURE

I. THE LOST COLONIES OF NORTH AMERICA

By MARTIN S. BRIGGS, F.R.I.B.A.

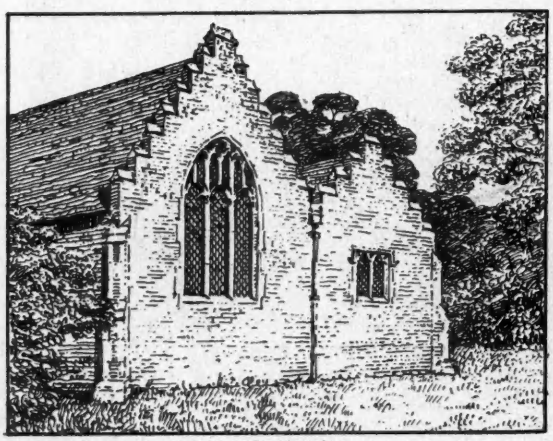
AGAIN and again during the long history of our Empire, British architects have had to decide how far local tradition should influence them in designing new buildings in the various colonies, dominions, protectorates and mandated territories. The problem arose notably in the case of New Delhi and in the Government buildings of South Africa; but it has occurred whenever a British Embassy has had to be built. It happens in the case of railway-stations, banks, office buildings, dwelling-houses; it has been raised even in regard to the design of cathedrals. Should local tradition be followed wholeheartedly, should some compromise be attempted, or should Britain proclaim her power and might by erecting buildings of definitely "British" character? If the last alternative be chosen, what is that character? Is it Italian Renaissance, is it Georgian or Tudor, is it—as Sir Gilbert Scott believed—French Gothic of the thirteenth century, or is it, as modern fashion dictates, an austere treatment of plate-glass and concrete? According to present-day pessimists, the British Empire is dropping to pieces; yet the problem will continue to arise in the self-governing dominions, as well as in territories which still remain colonies. The purpose of this article and those which will follow is to examine the local tradition, if any, in some of the principal components of the Empire, past and present, and to note how architects have dealt with it hitherto. In some of those territories—*e.g.*, "New England," Virginia, and Australia—the British entered a country where there was no building whatever and where the aboriginal inhabitants were savages. In others—*e.g.*, Canada and South Africa—they had been preceded by European nations who had already introduced their particular brand of architecture; while in others again—*e.g.*, India—they found a land abounding in magnificent buildings of pronounced local character, completely alien to the European tradition.

It may seem odd to readers that this first article should be devoted to architecture in the United States, but it must be remembered that the period since that great country has been free is in fact shorter than the period (1607-1783) during which it was a British colony. In spite of Dutch, Swedish, French and Spanish settlements, the tradition was British from the beginning and continued to be the dominant factor in American architecture long after the Declaration of Independence.

Virginia and New England were among the oldest of our colonies, the former being first settled in 1607, the latter in 1620. According to most scholars, there seems to be no ground for supposing that the British discovered North America. The Norsemen miraculously penetrated to the neighbourhood of Boston and New York in their daring voyage along the Atlantic coast via Greenland in the year A.D. 1000. Then there was John (really Giovanni) Cabot, who did sail from Bristol in 1492 but was Italian by birth; and, of course, there was Columbus, another Italian, a little later; and the Spaniards reached Florida and Texas soon afterwards. It was near the end of the 16th century, in 1583-8, that Sir Walter Raleigh made the first abortive attemps to form a trading colony in Virginia and gave the district that name in honour of his Queen. But she had been dead some years when the "London Company," as it was called, sent out a party of settlers, who landed in 1607 at a place which they christened "James Town," after King James. I. For some time they had a terrible struggle for survival. The climate was much more temperate than that which the Pilgrim Fathers encountered further north in 1620, but the natives who lived in the neighbourhood were hostile; and from the beginning the settlers had to fortify their camp. The Indians themselves occupied huts constructed of branches covered with bark or mats, and at first the English were scarcely better housed, for they slept in tents surrounded by a stockade. Then they erected huts or cottages of timber, roofed with thatch. Oak was abundant, as well as cypress, ash, elm, and walnut. Within two years they had a church, a communal storehouse, a tavern, 20 houses, and a proper well in the fort, now pentagonal in shape. In 1609, the Governor records that there were 50 or 60 houses, but that only one carpenter was available, plus "three others that could doe little, but desired to be learners." There were also two blacksmiths. In 1611 another town, "Henrico," was started. "It hath three streets of well-framed houses, a handsome church, and the foundation of a better [church] laid, to be built of bricks." Across the river, "Master Whitaker hath chosen his parsonage, a faire framed parsonage."

One of the earliest brick buildings erected by the colonists, in 1632, was St. Luke's Church, near James Town, illustrated here. It is not generally realised that the United States possesses a genuine Gothic church, not a mere specimen of the Gothic Revival. With its stepped gable and its crude brick tracery, it closely resembles a small brick Gothic church at Woodham Walter, in Essex, built in 1563-4, which I sketched many years ago (see illustration). Brick architecture of the late Gothic period in England is confined to Essex and the adjoining counties of East Anglia; and it seems possible that some craftsman from that region may have accompanied Captain John Smith, the daring voyager, afterwards Governor of Virginia, from whom I have already quoted. Apart from this little church, only two examples of early brickwork in Virginia are known; Warren House and Bacon's Castle, both many years later than St. Luke's. Bacon's Castle (before 1676) is a striking house with curved gables, tall chimneys and other features characteristic of the period in Eastern England.

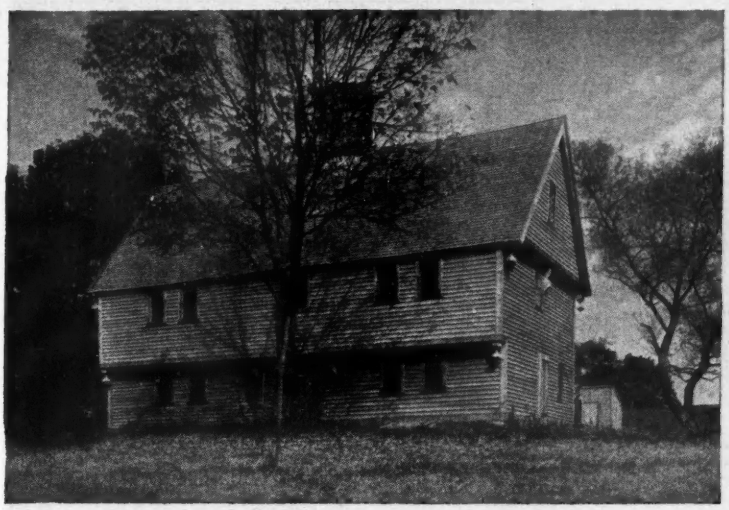
When the "London Company" was granted Letters Patent in 1606 by King James I to found the colony of Virginia, it was laid down that the colony must be located somewhere between the 34th and 41st parallels of latitude, but that in any case a distance of 100 miles must separate it from the land to be granted to the so-called "Plymouth Company" of traders, with which I am now going to deal, this latter company being given rights somewhere between the 38th and 44th parallels. Meanwhile, it is worth noting that, in this 100 miles of "No Man's Land" between the two English companies, settlements were established by the Dutch in the "New Netherlands" in 1623, and by the Swedes in "New Sweden," farther south, in 1638. The Swedes were ousted by the Dutch a few years later, and need not trouble us here, because they exercised no influence on American architecture. The Dutch, on the other hand, survived a little longer, and their settlement of "New Amsterdam," which consisted of only 30 bark-covered huts in 1626, had 400 or 500 inhabitants in 1643; but it had become a considerable brick-built town, not unlike old Amsterdam in Holland, when the British drove out the Dutch in 1664 and rechristened it "New York." Some of the oldest families in the States bear Dutch names (*e.g.*, Roosevelt, Vanderbilt), marking their origin from those very early days, but, so far as I can ascertain, not a single building survives from "New Amsterdam."



WOODHAM WALTER CHURCH, ENGLAND. 1563-4

ST. LUKE'S CHURCH, VIRGINIA, U.S.A. 1632

From sketches by Mr. Martin S. Briggs.



Parson Capen House, Topsfield, Mass.
(Courtesy of Topsfield Historical Society.)

The first settlement financed by the "Plymouth Company" consisted of a small party of 102 persons in all, of whom only half were adults, and they landed from the *Mayflower* in 1620. These were the famous "Pilgrim Fathers." A few of the men were hired craftsmen; but many of the party were professional men, unused to manual work, and it is doubtful if there was a single skilled carpenter or bricklayer among them. Most of them were refugees from religious persecution in England, and were what we now call "Congregationalists." During the next eight years, very few additional settlers arrived, but among them was a master-mason from Sandwich, in Kent: he must have been a great acquisition. The first settlement was at a spot christened "New Plymouth," and for many years the handful of colonists had a life of terrible hardship, in which they lost many of their number through sickness, though they had been more or less "hand picked" for good health. In 1629, when the Plymouth colony had grown to 400 or 500 persons, a second colony was established at Massachusetts Bay, which ultimately absorbed the earlier settlement. The number of English settlers in "New England," as it was now called, reached 1,600 in 1630, 4,000 in 1634, and 26,000 in 1640.

It was an inhospitable country, with a severe climate in winter; and the chief available building material was timber. Rough local stone was used, almost from the outset, for the plinths and chimneys of the settlers' houses—sometimes built dry, sometimes bedded in clay, sometimes laid in lime-mortar made from pounded oyster-shells. Brickwork did not come into use for many years, although, as we have seen, it was employed in Virginia. Glass was imported from England, as well as ironmongery. The type of house erected by the early colonists on arrival, in New England as in Virginia, was extremely rudimentary, with thatched roofs, boarded sides, and a chimney stack formed of short balks of timber laid horizontally. Within a few years, framed timber houses were in common use; plinths, fireplaces and chimney stacks were of stone or brick; and shingles were replacing thatch on the roofs.

As I have already mentioned, the early settlers were by no means "down and outs"; their leaders were educated people, and their ministers were graduates of Oxford or Cambridge. Within sixty years of landing at New Plymouth they had advanced so far in security, prosperity and material resources that they were able to erect for one of their ministers the charming and spacious parsonage at Topsfield illustrated here. Like so many placenames in New England, Topsfield recalls an Essex village in old England. Built in 1683, this house is notable for the deep shadow cast by the bold eaves, the overhanging gable at the end and the graceful "drops" or pendants of the overhanging front, one opposite each main post of the framing. Internally, the rooms are comparatively large, the "parlour" measuring about 20 ft. by 17 ft. 6 in., and the "hall" about the same. The house was acquired by the local historical society in 1913, carefully restored, and furnished in the style of the period. The fireplace of the parlour is enormous, and the heavy timber beams of the ceiling are exposed. Upstairs there are two corresponding large rooms, one on each side of the tastefully designed staircase.

The John Ward House, Salem, Mass. (*c.* 1684-5—see illustration), has brick filling in the framing, behind the weatherboarding. It was taken down and rebuilt in 1911 by the Essex Institute, who had acquired it, and it has since been appropriately furnished. It originally consisted of two rooms with the usual staircase porch between them. It is thoroughly English, and—in spite of its date—surprisingly mediæval in appearance. The oldest of the surviving timber-framed and boarded houses in New England is probably "The House of the Seven Gables" at Salem, Mass. (*c.* 1635), immortalised by Nathaniel Hawthorne. Altogether, 60 or 70 houses of this type in New England which have been described in books may be safely attributed to the following fifty years, and there are many more which are

Parson Capen House, Topsfield, Mass.: The Staircase.
(Courtesy Society for Preservation of New England Antiquities, Boston, Mass.)

Stone House, Guilford, Conn.

The John Ward House, Salem, Mass. (c. 1684).

almost certainly of equal age. Generally speaking, they have been carefully restored, and are maintained by their owners as precious historical monuments. Many of them are owned by local historical societies, and some are preserved as museums. Apart from these, some rooms have been re-erected complete, with contemporary furniture, in the national museums, *e.g.*, the example from Hart House, Ipswich, Mass. (*c.* 1640), now in the Metropolitan Museum of Art at New York (see illustration). Their kinship with contemporary architecture in south-eastern England, particularly in Essex, from which so many of the "Pilgrim Fathers" and other early settlers came, is obvious; and in a book published many years ago * I elaborated this thesis, illustrating some examples from both sides of the Atlantic, comparing details of design and construction, and tracing the provenance of the colonists.

We may now return to Virginia, which had become a flourishing colony by the end of the seventeenth century, with some 70,000 inhabitants, of whom about 20,000 were Negro slaves. Tobacco growing was the chief industry. Whereas New England was predominantly democratic, with the Congregational church or meeting-house as the focal point of each little township, Virginia was as definitely aristocratic and Church of England. In 1691, James Town was superseded by a new capital at Williamsburg, and a really excellent town was planned, with the college and the governor's palace as its chief buildings, all in the style of Wren. Indeed, there is a legend that Wren himself designed the charming "William and Mary College" which was built in 1693-97. A splendid avenue called "The Palace Green," 1,200 ft. long, ran from the college to the governor's palace, and the subsidiary streets were parallel to it. The public buildings and the church (1717) were of brick, the dwelling-houses mainly of timber. It was a perfect example of English late-Renaissance architecture, but was in a sad state of decay when, in 1925, a multi-millionaire was persuaded by the local parson to undertake its complete restoration, regardless of expense. Leading architects and antiquaries from all over America were enlisted to study the buildings and records of the town, 572 "inharmonious" buildings were demolished, all the eighteenth-century monuments were restored, and a suitable number of new buildings (including shops) were designed in the Queen Anne style. The ultimate result, correct to the last button, is one of the loveliest little towns in the world—and English to the core.

Westover, in Virginia (*c.* 1726—see illustration) is a magnificent example of early Georgian work in America, where, as in England, Palladio's rules of design had become the architect's Bible; and it shows a marked contrast to the earlier, almost mediæval type of the gabled and boarded New England house. With its dignified yet homely formalism, it resembles the best work of Wren. On the ground floor are four large rooms with a central staircase hall. The style of the design is bold and robust. The broken pediment is somewhat baroque in character, as in much English detail of that period.

From this date (1726) up to the loss by England of the American colonies in 1783, architecture followed much the same path as in England, with a generally high level of design and craftsmanship based upon the numerous and popular "copybooks" published in England and freely used by laymen, builders and carpenters, as well as by architects. America, however, developed one distinctive feature by favouring slender and even attenuated columns, breaking away in that respect from Palladio's rules. An example is the beautiful house known as Mount Vernon at Washington, begun in 1743 by George Washington on a fine site near the city which he laid out a few years later. It is a framed house with a boarded exterior, but the boards are thick, and panelled to give the appearance of dressed stone blocks, a sad error of taste.

The influence of the Brothers Adam was at least as potent in America as in England. It appears in the delicate detail of many elegant houses, especially in the work of Samuel McIntyre (a carpenter by training), Charles Bulfinch, and Thomas Jefferson (1743-1826), an amateur architect. The larger houses now became more formal, and the idea of circular, elliptical and octagonal rooms was introduced, as in England at the same period. Curved ("geometrical") staircases were also favoured, and Roman or Pompeian detail was used everywhere. The extraordinary case of Thomas Jefferson is without parallel in architectural history. A graduate of the College at Williamsburg, he passed out thence, before he was twenty, with a remarkable record in languages, live and dead, mathematics and science. He was also an expert musician, dancer, sportsman and horseman. Trained as a lawyer, he drafted the famous "Declaration of Independence," became Governor of Vir-

* "The Homes of the Pilgrim Fathers in England and America, 1620-1685," published 1932.

Hart House, Ipswich, Mass. (c. 1640).
(Courtesy of the Metropolitan Museum of Art.)

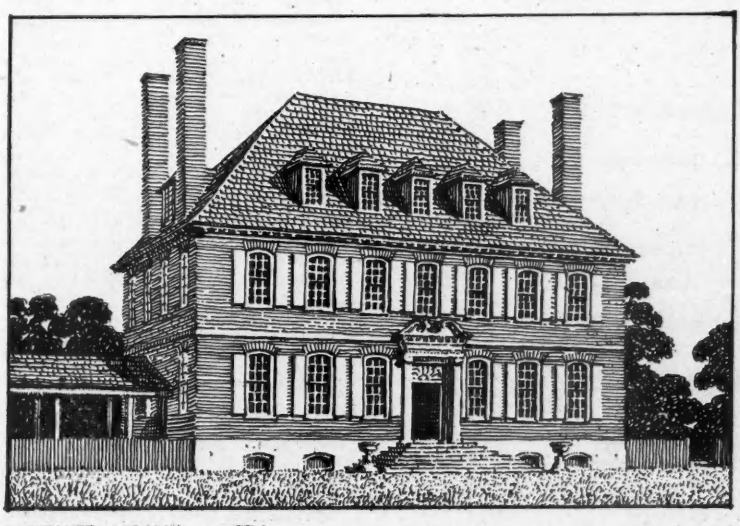
ginia in 1779 and President of the United States in 1801, retiring eight years later to devote the remainder of his life to farming and building. Yet somehow he contrived, in his crowded career, to gain a considerable knowledge of architecture, prepared designs for a number of really important buildings, carried them out, and even submitted plans in competitions. His own house at Monticello, in Virginia (see illustration), typifies his taste in design. He planned it in 1796, when he was very young, and supervised its erection over a long term of years: some say that he acted as his own contractor. There is no doubt that he acquired his knowledge of design from books obtained from England and France, and also from the study of classical models abroad. Monticello, in spite of its formal exterior, is a cheerful and comfortable dwelling.

THOMAS JEFFERSON'S HOUSE (1796-1809) AT MONTICELLO, VIRGINIA, U.S.A.

The Declaration of Independence in 1783 caused no abrupt break in the entirely British character of American architecture: in fact, British influence persisted through most of the nineteenth century. The famous White House at Washington (1792-99) is a stone building of considerable size, and serves as the President's official residence. Its architect was an Irishman, James Hoban, who closely followed one of his previous designs for a mansion near Dublin, and it contains a series of noble rooms, with an elliptical staircase. The style is accomplished and has a distinctly French flavour. The design for the Capitol at Washington was originally made by a complete amateur, a physician named Thornton, who had just arrived in America from London in 1793 when George Washington entrusted this splendid commission to him. It seems to me ironical that the American Institute of Architects eventually acquired as its own headquarters another of this gifted amateur's buildings, the Octagon House at Washington. On his death in 1818, the completion of the Capitol was assigned to Charles Bulfinch, an architect of orthodox training and scholarly taste; but the fine dome and the wings were added much later, in 1851-65.

The Greek Revival reached America towards the end of the eighteenth century, and was followed by the Gothic and other revivals that afflicted England, the direction of flow being from England to the States. The design of our delightful old colleges has been imitated for many American university buildings right up to the present day. True, America did develop a "Romanesque Revival" of her own under H. H. Richardson in the last quarter of the nineteenth century; and followed it with a long series of monumental Roman designs unmatched in our own country. But the most interesting architectural adventure in America after the British departed was the abortive attempt by Louis Sullivan (1856-1924) in his Transportation Building at the World's Fair, Chicago, in 1893, to create an entirely fresh and distinctively American style of design. This isolated experiment, however, made few converts, and Sullivan's reputation to-day rests mainly on the circumstance that he trained Frank Lloyd Wright, the hero of the hour, who has certainly abjured British tradition. There have been two other possible influences upon American design: the picturesque Spanish Jesuit "Missions" on the Californian coast erected from 1776 onwards; and the French buildings of New Orleans and elsewhere, dating from the same period, when Louisiana stretched from the Great Lakes to the Gulf of Mexico. The former have certainly inspired some recent designs, including palatial houses for the plutocrats of Los Angeles, but the French factor is negligible, and the most powerful influence in American architecture has been English.

(To be continued.)



WESTOVER, VIRGINIA. c 1726.

OBITUARY

Charles Edward Bateman, F.R.I.B.A.

We regret to record the death, on Tuesday, August 5, at Bourton on the Hill, of Charles Edward Bateman, F.R.I.B.A.

Mr. Bateman, who was 84, was well known in the Midlands and in London, and carried out much excellent architectural work. He was elected an Associate of the R.I.B.A. in 1895, and a Fellow in 1898.

Harold Ogle Tarbolton, R.S.A.

It is with regret that we record the death, at the age of 78, of Mr. Harold Ogle Tarbolton, R.S.A., F.R.I.B.A., of Edinburgh, architect of many important buildings in this country and in Bermuda.

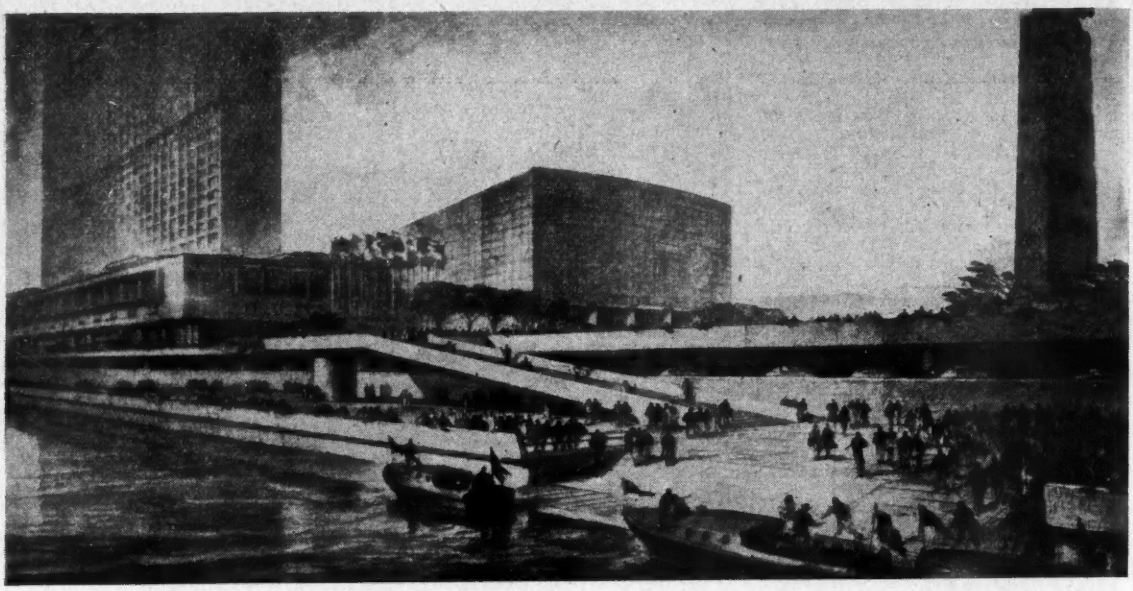
Mr. Tarbolton, whose father was a civil engineer, was born at Nottingham in 1869. After studying at the Royal Academy School of Architecture, he received his early training in the office of Mr. Gerald Horsley. He commenced practice in 1892, and about 14 years ago he entered into partnership with Sir Matthew M. Ochterlony, who died last October.

Elected R.S.A. in 1934, Mr. Tarbolton had for 10 years been a member of the Royal Fine Art Commission for Scotland, and he was advisory architect to the North of Scotland Hydro-Electric Board. He was president of the Edinburgh Architectural Association from 1904 to 1906.

Among the buildings designed by Mr. Tarbolton are the Elsie Inglis Memorial Hospital in Edinburgh, the Church of Our Lady at Bangour, St. Bride's Church, Glasgow, and mansion-houses in various parts of the country. He was also responsible for the completion of Bermuda Cathedral (where the pulpit is a reproduction of that in St. Giles's Cathedral, Edinburgh) and other buildings in that colony. He was consulting architect to the Deans and Chapters of St. Ninian's Cathedral, Perth, and of Oban Cathedral.

J. Andrew Minty, F.R.I.B.A.

We regret to record that Mr. J. Andrew Minty, F.R.I.B.A., of 92, Hermon Hill, Wanstead, died on August 5. During his long life as an architect he did much work in connection with hospitals but his real love was church architecture. Examples of his work are: The Wallace Memorial at Elderslie, near Glasgow; the Almshouses at Wareham, Dorset; various country houses; the Connaught General Hospital, Walthamstow; and the Parish Church at Leyton, which he restored and beautified.



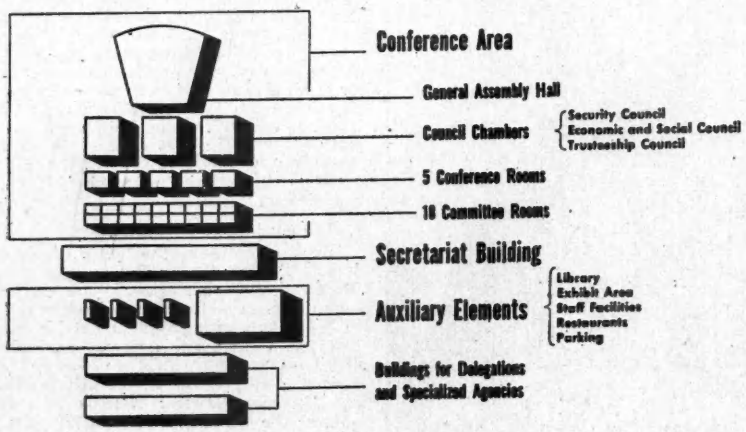
Perspective of Buildings from the East River. The Embankment Road is Franklin D. Roosevelt Drive.

PERMANENT HEADQUARTERS, NEW YORK for the UNITED NATIONS

DESIGNED BY WALLACE K. HARRISON AND AN INTERNATIONAL BOARD OF ARCHITECTS

A REPORT on the permanent headquarters of the United Nations, to be erected on a site on the East River, New York, was presented on Sunday last to the General Assembly by the Secretary General, Mr. Trygve Lie. It follows a resolution adopted by the Assembly in December last to press on with the erection of permanent headquarters and the offer by Mr. John D. Rockefeller, Jun., of property located on the East River, between Franklin D. Roosevelt-drive and First-avenue—a mid-town property of a very intensively developed nature which indicated in advance its redevelopment by modern techniques of vertical construction.

An early step was the calling together in the R.K.O. Building in New York of a group of architects of international reputation, composed of G. A. Soilleux (Australia), Gaston Bronfaut (Belgium), Oscar Niemeyer (Brazil), Ernest Cormier (Canada), Ssu Ch'eng Liang (China), Charles le Corbusier (France), Sven Markelius (Sweden), N. D. Bassov (U.S.S.R.), Howard Robertson (United Kingdom), and Julio Vilamajo (Uruguay) —all acting under a Director of Planning, Wallace K. Harrison. Louis Skidmore (Skidmore, Owings and Merrill), Gilmore D. Clarke (Clarke, Rapuano and Holleran) and Ralph Walker (Voorhees, Walker, Foley and Smith) have been associated with the organisation of the construction. Demolition was expected to begin about the beginning of July last.



The Elements of the Building.

The plan, in its first stage, calls for a 45-storey secretariat skyscraper surrounded by low buildings containing three council chambers, four large conference rooms, 18 committee rooms, and underground parking accommodation for 1,900 motor-cars. The General Assembly hall and the secretariat theatre, with seating for 6,200 persons, are included in the second stage, which means that Assembly sessions will be held in the present provisional premises in New York for at least another three or four years. The final stage of the plan provides for the construction of premises for the various national delegations and their staffs, plus headquarters for specialised agencies. The total cost is put at $84,831,450.

A somewhat less ambitious alternative programme, estimated to cost $65,000,000 and reducing the secretariat building to 40 storeys as well as cutting down some other units proportionately, is now being prepared for simultaneous presentation to the Assembly in September.

The Site.

The site extends for 1,500 ft. along the East River and slopes gently towards the river. A bedrock of hard Manhattan Schist forms a solid base for structural work. On this the buildings have been planned. On this page are shown in diagrammatic form the basic requirements of the building. A total area of 510,830 sq. ft. of floor area is required to house the General Assembly (43,370 sq. ft.), Council Chambers (46,550 sq. ft.), Conference Rooms (61,500 sq. ft.), Committee Rooms (32,760 sq. ft.), Lounges and Lobbies, etc. (251,000 sq. ft.), and Secretariat Services to Conference Area (76,650 sq. ft.).

The Secretariat Building must house 3,000 to 5,000 persons who—under the Secretary General and eight assistants—will handle the current business of the organisation. A further 598,413 sq. ft. of accommodation is needed for these. Auxiliary elements—library (171,000 sq. ft.), staff facilities (58,800 sq. ft.), restaurants (76,400 sq. ft.), and parking space (590,000 sq. ft.)—take up a further 896,200 sq. ft. Finally, 446,100 sq. ft. are to be occupied by delegations and specialised agencies.

The building programme is planned as

three stages. Stage 1 will include (as stated) the entire secretariat, three council chambers, four conference rooms, all 18 of the committee rooms and lounges, restaurants and press facilities, and underground parking facilities for 1,200 cars—in all 2,134,071 sq. ft. Stage 2 will include the general assembly, the fifth conference room and the theatre—a further 63,270 sq. ft. The third stage provides for athletic facilities, dormitory, delegations and specialised agencies—972,300 sq. ft.

The Plans.

The plans, illustrated in these pages, indicate the stage which has been reached in the search for an architectural solution. They are not claimed to be perfect or final, but they represent the first fruits of the teamwork of the architects and engineers. Detailed design studies of the final physical appearance of the buildings are not yet published. The buildings will rise from a green plateau by the river, and the main entrance level plan shows that the main entrances will be from the First-avenue and delegates, staff and visitors will proceed to their destinations by ramps, escalators or elevators. At the first floor (second level) are the four conference rooms and library. The second floor (third level) provides working access from the secretariat to the general assembly hall and council chambers without conflict with other types of circulation. The fourth or delegates' level (third floor) is that on which the delegates find a single focal point in contact with all their work areas; this central point is developed into the important main delegates' lounge, with its view of the river and park. The sixth level (fifth floor) gives access to the galleries of the council chambers and houses the public reference library. Above this is the roof level, with gardens and restaurants. Cross-sections of the buildings are shown also.

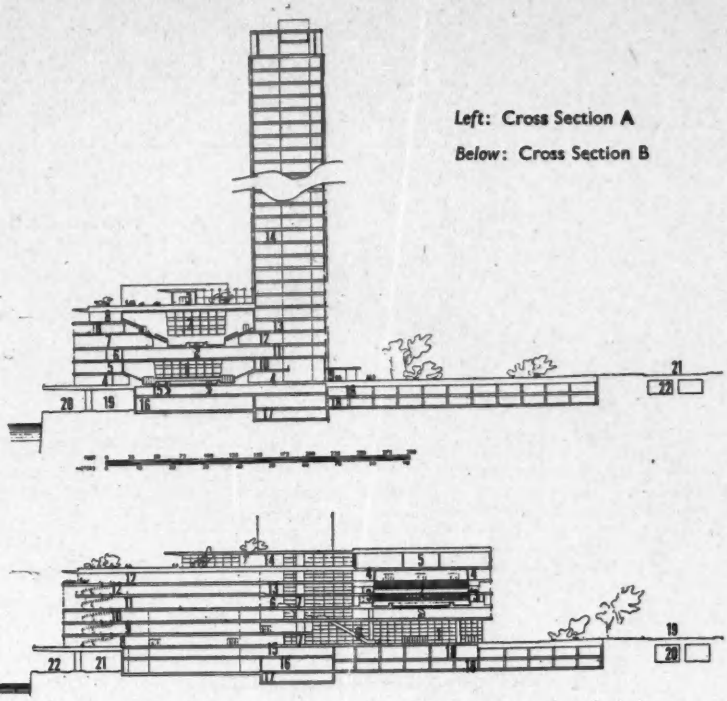
The General Assembly Hall.

To be erected as part of Stage 2, the General Assembly Hall will seat the representatives of the 54 member-nations. The hall plan is fan-shaped, and seating faces the Speaker. The Press Gallery is placed behind the delegates' seating.

Also shown in these pages is a typical floor of the secretariat building, while an

Left: Cross Section A

Below: Cross Section B

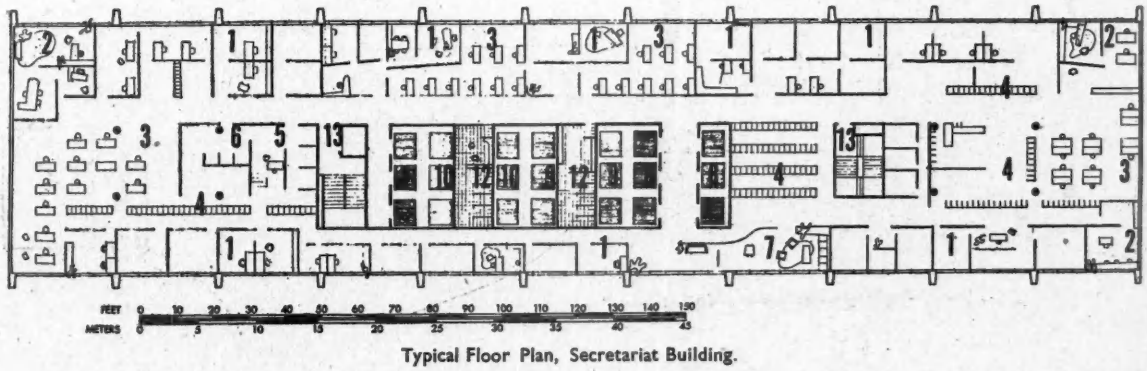


Cross Section (A)

1. Conference room
2. Council Chamber
3. Restaurants
4. Committee rooms and Delegates' access to Conference rooms
5. Public access to Conference rooms
6. Committee rooms
7. Main Delegates' level and access to Council chambers
8. Public access to Council chambers
9. Secretariat entrance
10. Press access to Conference rooms
11. Conference services level
12. Delegates' access to Council chambers
13. Press access to Council chambers
14. Secretariat
15. Documents production
16. Shipping, receiving, garage and shops
17. Maintenance and mechanical services
18. Parking levels
19. Franklin D. Roosevelt Drive, south-bound
20. Franklin D. Roosevelt Drive, north-bound
21. First Avenue
22. Proposed tunnel under First Avenue

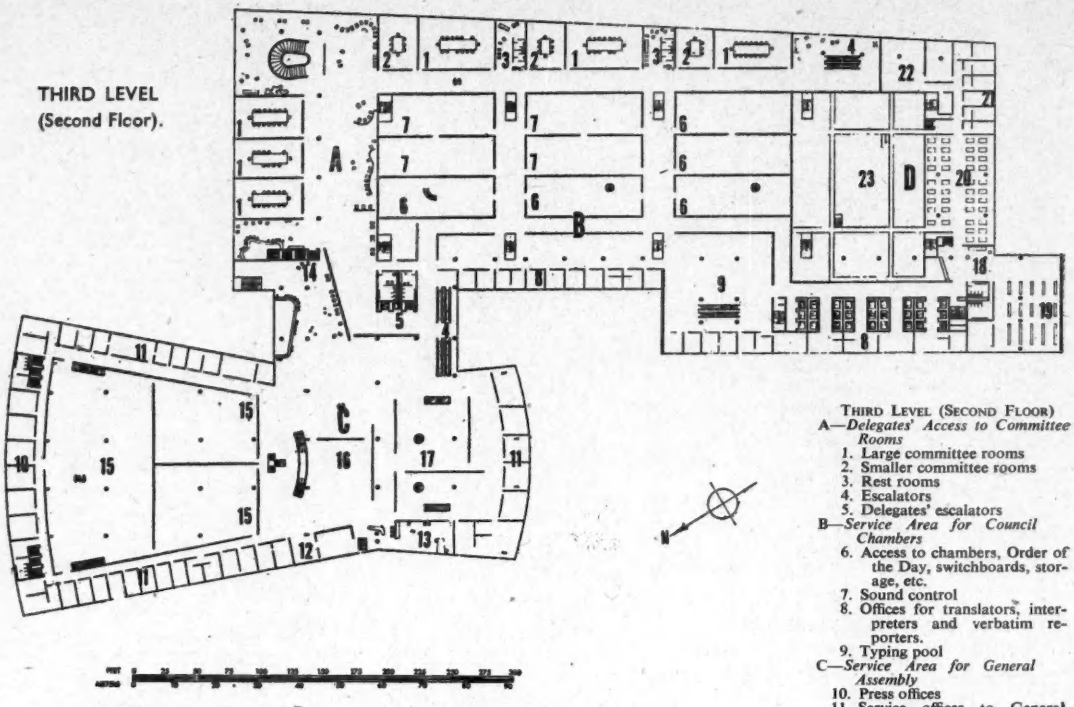
Cross Section (B)

1. Delegates' entrance lobby
2. Conference Room No. 5
3. Booths
4. Public access to galleries
5. Radio control and studios
6. Escalator to Delegates' lounge
7. Delegates' elevators
8. Committee rooms and Delegates' access to Conference rooms
9. Public access to Conference rooms
10. Committee rooms and Conference services level
11. Delegates' lounge and access to Council chambers
12. Public access to Council chambers
13. Press access to Council chambers
14. Restaurants
15. Documents' production, etc.
16. Shipping and receiving
17. Maintenance and mechanical services
18. Parking levels
19. First Avenue
20. Proposed tunnel under First Avenue
21. Franklin D. Roosevelt Drive, south-bound
22. Franklin D. Roosevelt Drive, north-bound


1. Typical private offices
2. Executive suites
3. Clerical office space
4. Filing
5. Documents distribution
6. Storage
7. Lounge
8. Medium low-rise elevators
9. Medium high-rise elevators
10. High-rise elevators
11. Service Elevators
12. Toilets
13. Stairway
N
FEET 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150
METERS 0 5 10 15 20 25 30 35 40 45

Typical Floor Plan, Secretariat Building.

THIRD LEVEL
(Second Floor).



MAIN ENTRANCE LEVEL (GROUND FLOOR)

A—*Delegates' Entrance*
1. Entrance lobby
2. Cloak-room and toilets
3. Information
4. Escalator to main delegates' lounge
5. Delegates' elevators

B—*Public Entrance*
6. Entrance lobby
7. Public elevators
8. Exhibition
9. Cloak-room and toilet
10. Cinema (or auditorium)
11. Dressing-rooms, etc.
12. Public ramp to Conference rooms
13. Communications centre for public

C—*Secretariat and Press Entrance*
14. Entrance lobby
15. Elevators
20. Escalator for Press

D—*Conference Room No.* 1
21. Delegates and advisers
22. Public gallery
23. Press gallery
24. Secretariat
25. Booths

E—*Conference Room No.* 2
26–30. Accommodation as in room No. 1

F—*Conference Room No.* 3
31–35. Accommodation as in room No. 1

G—*Conference Room No.* 4
36–40. Accommodation as in room No. 1

H—*Delegates' Area*
41. Escalator from parking area
42. Main stairway
43. Large committee rooms
44. Smaller committee rooms
45. Rest rooms
46. Escalators to main delegates' lounge

J—*Library*
47. Entrance
48. Exhibition area
49. Public information

K—*New York City Housing Authority Building*

THIRD LEVEL (SECOND FLOOR)

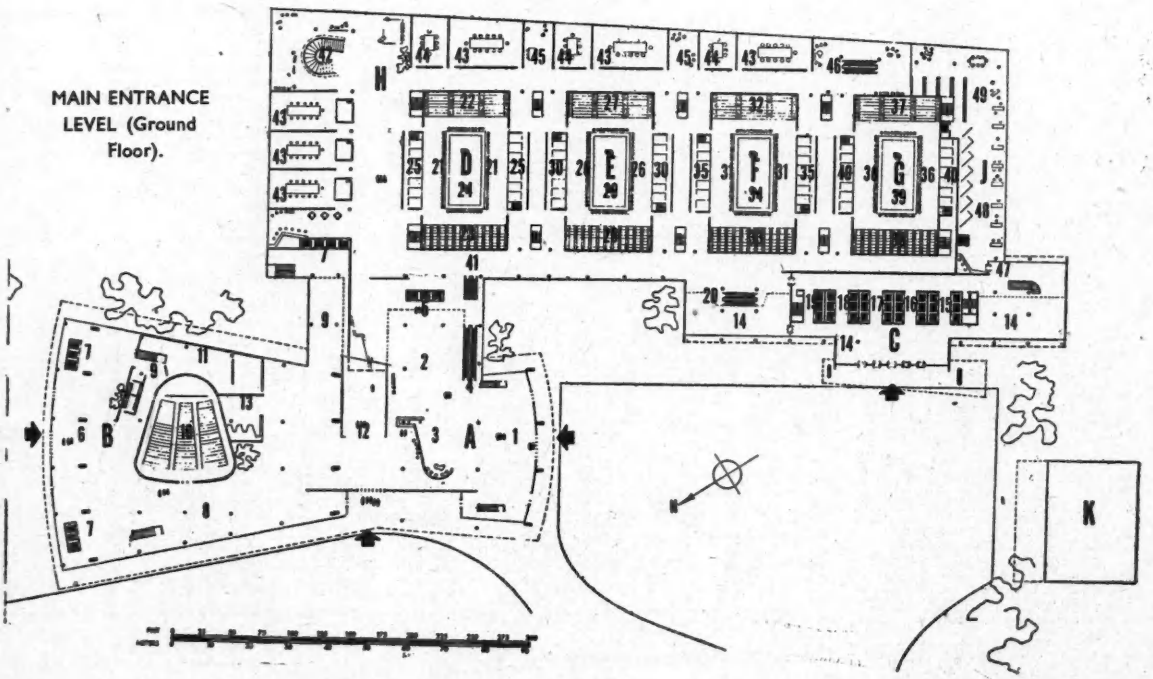
A—*Delegates' Access to Committee Rooms*
1. Large committee rooms
2. Smaller committee rooms
3. Rest rooms
4. Escalators
5. Delegates' escalators

B—*Service Area for Council Chambers*
6. Access to chambers, Order of the Day, switchboards, storage, etc.
7. Sound control
8. Offices for translators, interpreters and verbatim reporters.
9. Typing pool

C—*Service Area for General Assembly*
10. Press offices
11. Service offices to General Assembly
12. Protocol and Liaison offices
13. Reception room
14. Rest rooms and refreshment bar
15. Storage, services, unassigned space
16. Access to General Assembly work space
17. Access to Conference room No. 3 work space

D—*Library*
18. Lobby
19. Card catalogue
20. Catalogues and periodicals
21. Administration
22. Order and acquisition
23. Stacks

MAIN ENTRANCE LEVEL (Ground Floor).



artist's impression of the exterior of the buildings will be found at the commencement of this article.

Of the many problems which the establishment of a huge building in an urban area brings in its train, traffic and the housing of personnel are only two. Access and dispersal have been closely watched in making plans and proposals are also on hand for building housing projects within easy reach of the buildings.

Of the preliminary cost estimate of $84,831,450, $55,060,000 is for buildings and $5,498,000 for furnishings. The next step will be :—

(*a*) The submission of design studies of the exterior and interior appearance of the buildings.

(*b*) Precision of the plans to eliminate any unnecessary features of the spaces, and to revise the arrangements of the building elements.

(*c*) Completion of all engineering studies based on the plans as developed to date.

(*d*) Estimation of exact cost based on this further study; and

(*e*) Development of final recommendations for financing.

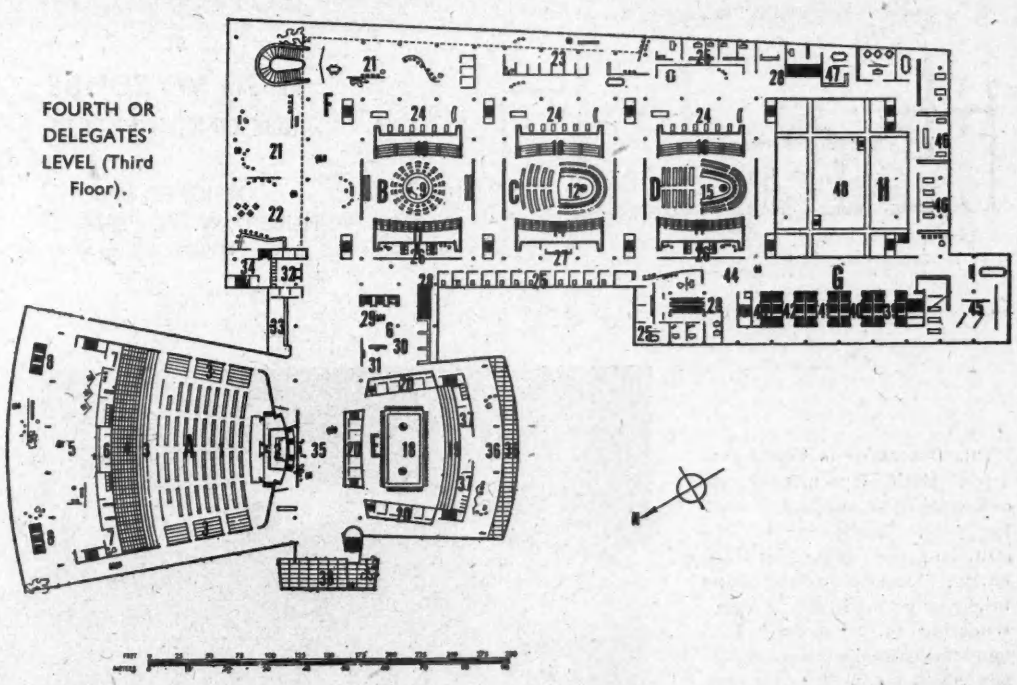
Bessingby Housing Estate Competition.

THE correct style of the firm of Messrs. Culpin and Son, winners of the Bridlington Competition, is Culpin and Son, F.R.I.B.A. Since the death of Mr. Ewart G. Culpin, F.R.I.B.A., P.P.T.P.I., last December, Mr. Clifford E. Culpin, F.R.I.B.A., has conducted the practice alone.

ART AND MR. HOPKINS

THE LATEST WRITING of Gerard Hopkins, though possibly out of tune with the current world (writes a correspondent), has in it a much-needed source of refreshment. On this pretext let me quote a portion : "Estates planned by socially minded architects in the name of an ill-understood functionalism are no better [than speculative builders' work]. They may even be worse, for concrete walls and huge spaces of glass have little but hygiene in their favour. The horrible houses of our ribbon development do at least set free the imagination in those who look in vain for a chance of making their own beauty. Until architects cease to think in terms of labour saving and bathrooms and are moved again by a sense of style and splendour and laughing construction, those who live in their arid boxes will be plagued by a feeling of incompletion. Better the florid Victorian baroque of public-houses, which warm the heart as well as satisfy the thirst, than all the cold, neo-Georgian road-houses, which leave their habitués without that warmth of feeling which is as necessary as the coolness of liquor. Bad art springing from a need that is merely ignorant is far preferable to art, however good, which is arranged by a higher authority." We feel that our recent architectural crimes are coming back on us, for Mr. Hopkins quite obviously sees the new architecture as that odd period of concrete-and-glass construction which happened in those far-distant 'thirties. The little that can be said for this phase is that it did not go very far, and that, except for a few picture-books on the subject, the English countryside (and town) is not consciously peppered with examples.

The contrasting of Victorian public-houses and neo-Georgian types is, however, rather more difficult in its implications. Victorian art is, as yet, rather too recent to offer any real latent possibilities as a "revived" style. In any case its very "floridness" would probably defeat many modern craftsmen and designers, and although we have no particular case for neo-Georgian as a current style for public-houses, on the grounds of scale and harmonious design, it is infinitely preferable to most essays in the modern vernacular. That there is a satisfactory solution I feel quite certain, and I can't help feeling the subject would make a very enjoyable competition. There is a great deal in what Mr. Hopkins says, but I doubt if anybody, on £1,300, would be capable of building a house with "a sense of style of splendour and laughing construction"; substitute "laughable" for "laughing" and we might have it! . . . but the reduction of the scope for the inherent instincts of creativeness is certainly a matter of great seriousness. Mass production is at the present time an economic necessity, but the logical outcome of mass production is the stepping up in production of the whole field of man's activity. As Mr. Hopkins has it, "But one thing is certain, that unless men can find some way of satisfying their deep desire to create, the long ages of machinery ahead will be interspersed by recurring periods of savage violence. For if men cannot create, they will destroy."



FOURTH OR DELEGATES' LEVEL (THIRD FLOOR)

A—*General Assembly*
1. Seats for Delegates
2. Podium
3. Advisers and accredited observers
4. Press gallery
5. Public lobby
6. Telephones
7. Telephones
8. Toilets
9. Public elevators

B—*Security Council*
9. Conference area for Delegates
10. Public gallery
11. Press gallery

C—*Trusteeship Council*
12. Conference area for Delegates and advisers
13. Public gallery
14. Press gallery

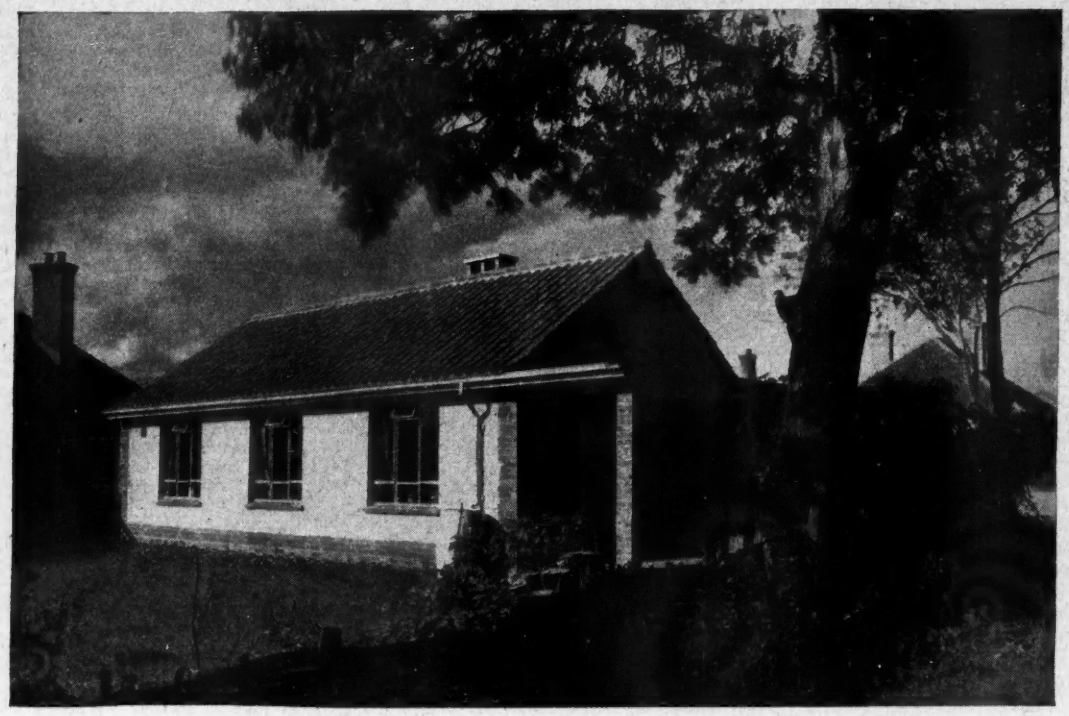
D—*Economic and Social Council*
15. Conference area for Delegates and advisers
16. Public gallery
17. Press gallery

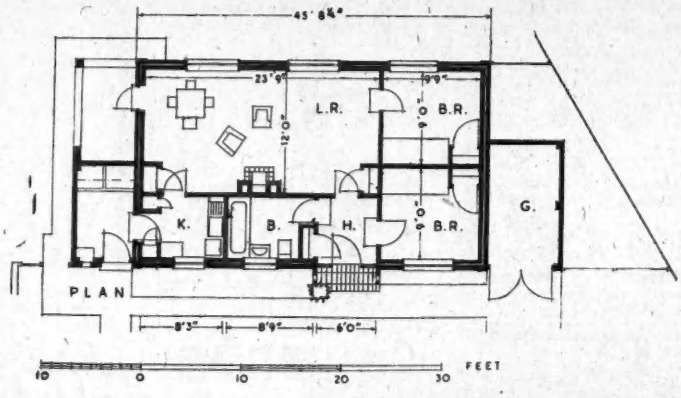
E—*Conference Room No. 5*
18. Conference area for Delegates and advisers
19. Press gallery
20. Booths

F—*Delegates' Area*
21. Main Delegates' area
22. Bar
23. Private rooms
24. Writing rooms
25. Council executive offices
26. Toilets
27. Cloak-room
28. Escalators
29. Delegates' elevators
30. Information and transportation desks
31. Reception
32. Telephones and telegraphs
33. Document distribution
34. Service
35. Lobby
36. Lounge
37. Toilets
38. Terraces

G—*Secretariat Building*
39–43. Elevators
44. Lobby

H—*Library*
45. Map room
46. Emergency collection
47. Delegates' reading rooms
48. Stacks

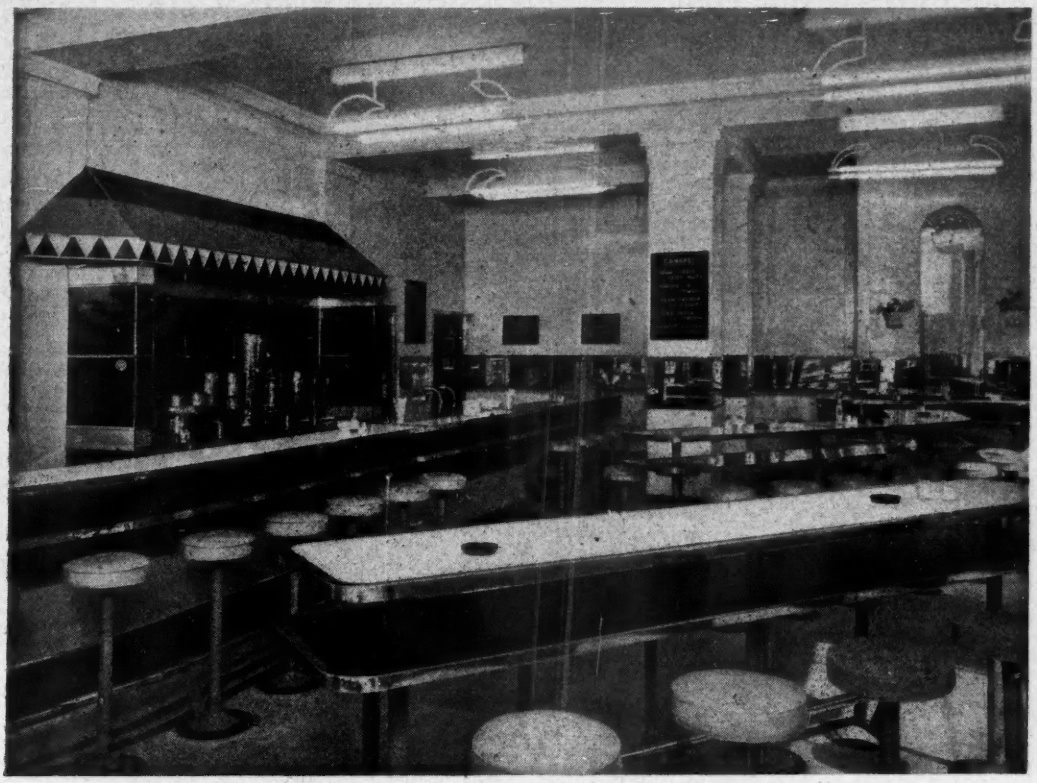




BUNGALOW
at
HIGH WYCOMBE
BUCKINGHAMSHIRE

DESIGNED BY
HUBERT W. W. FENWICK,
STUD.R.I.B.A.

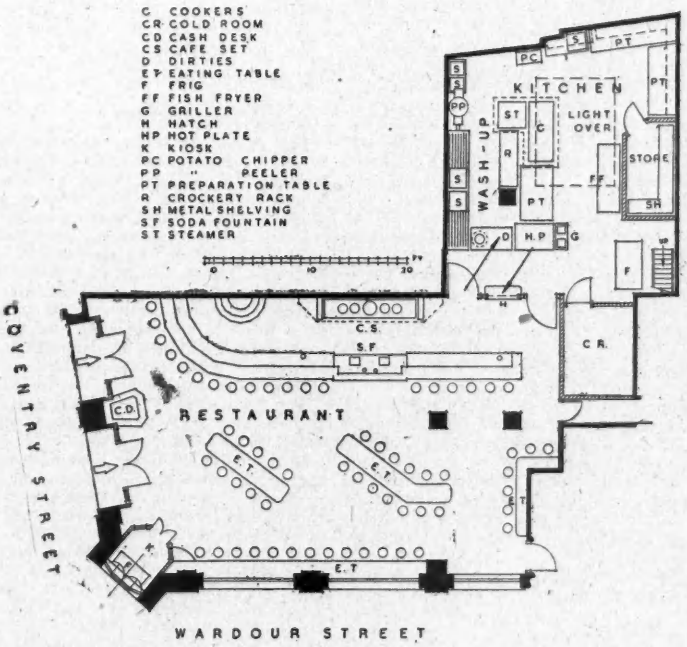
THIS BUNGALOW—IN TOTTERIDGE-drive, High Wycombe—is an owner-designed building erected last year. Traditional in construction, the walls are 11-in. cavity, local wire-cut facing bricks being used, with a rough rendering of Snowcem. Red, hand-made English pantiles are laid to a 30 deg. pitch on the roof. Living-room and bedroom floors are covered with Swedish red-wood blocks and the living-room is heated with a "Siesta" slow-combustion stove. The builders were John Hopkins Buildings, Ltd., of Hughenden, Bucks, and the contract price was £1,080.



HONEYSUCKLE RESTAURANT, COVENTRY-ST., W.

THE PREMISES CONTAINING THIS restaurant were originally planned for banking purposes and much of its physical character had, perforce, to remain. The restaurant had, therefore, to be kept simple in design, relying upon colour for effect. The colour scheme for the fittings is red and black plastic, trimmed with stainless steel and introducing other colours on a limited scale. The walls and ceiling are painted cream. Although fully cooked meals are provided, it was decided to adopt the snack-bar type of seating arrangements, good circulating space being given precedence over maximum seating, and this has been fully justified.

All the kitchen equipment was specially designed (with the exception of the cooking ranges) in Birmabright and stainless steel, and detailed to minimise infestation. It is important to note here that the building timber totalled only .02 standards. The floor is in buff-coloured terrazzo with coved skirting. The walls are painted in cream, and a glazed cement dado surmounted by a black band is substituted for wall tiles. The kitchen has a speaking unit for relaying orders from behind the counter in the restaurant. The whole of this work, including the provision of all equipment, was completed in 16 weeks by the shopfitting contractors, Messrs. Charles Spreckley and Co., Ltd. Plumbing and drainage work was by Davis and Crumpler; floor surfacing by Franchi Wood-Mosaic Flooring, Ltd.; electrical work by the Dawn Electric Construction Co., Ltd.; kitchen fittings and equipment by the Henderson Safety Tank Co., Ltd., and Messrs. Wm. Page, Ltd.; kitchen ventilation by Ozonaire, Ltd.; and speaking equipment by Trix Radio, Ltd.



J. NEWTON-SMITH, L.R.I.B.A.,
ARCHITECT

CORRESPONDENCE

The Future of the Private Architect.

To the Editor of *The Builder*.

Sir,—Whilst I regret the resurrection of the Private versus Official Architect controversy, your editorial of August 1, which makes the blatant statement that "in the main, the majority of work now undertaken by the official architect should be left in the hands of the private architect," cannot be expected to remain unchallenged.

You say that the alternative to the "private" architect is the "official" architect, but from the elaboration of your argument it transpires that the objection is not only to National or Local Government Departmental architects, but to architects "in any salaried position."

The small minority of the profession who stand out in the lonely isolation of fee-paid independence, functioning in a vacuum of alleged complete freedom conditioned only by "the scope of the current problem," are endowed with mythical qualities of inspired architectural genius; the virtues of a few are placed to the credit of the whole, and on this fallacious basis salaried architects are condemned in favour of fellow members of their profession of no superior training, of no superior experience, and of no superior skill, but who merely receive their remuneration in another way.

The misguided reason for that preference is the belief that only the private practitioner enjoys that atmosphere of complete freedom in which good architecture can flourish, but in actual practice the extent to which the average practitioner is completely free and compietely independent is subject to considerable qualification.

On the other hand, why should it be assumed that official architects do not enjoy at least equal freedom to produce good architecture? If their clients or employers have ordinary wisdom, they choose their architects carefully and give them a free hand to exercise the professional skill for which they are paid, limited only by "the scope of the current problem"; it is the architect's job to produce the best possible solution of which he is capable. The client is impersonal and without whims and the architect is in relation to each job financially independent and need make no concession to ensure continued patronage.

If under some authorities he is not thus free and if he is "constantly subject to intolerable interference and restriction," it is not the fault of the principle of salaried engagement, but the method of application of that principle; when the works of official architects (and the works of private architects) fall below the standards of good architecture it is not the fault of a system, but the reflection of the inferior skill of the particular authors.

The quality of architecture depends not on the methods by which architects are employed or remunerated, but on the professional skill of the individual architect. The future of architecture is in the hands of the schools, and standards of architectural education must be raised higher and higher until the profession as a whole has attained that standard of creative artistry which you incorrectly imagine to be general to, and the monopoly of, a particular section.

The community needs the services of both private and official architects. Each have their legitimate fields of practice, but their common interest is the art and profession of architecture; let not that unity be shaken by dissensions which divert energy, undermine confidence and create the appearance of disunity.

You ask if the men and women, the fruits of the schools of the years after the first Great War, now experienced and ready to hand, are to be wasted; as one of them who rejoices at the large proportion of his fellow-students who now occupy senior official architectural positions, my answer is obvious. Equally confidently can I assure those in training that no public authority has any room for ciphers in its architectural department, but we will welcome with open arms those who have the ability and the enthusiasm to become "the authors of a new and alive expression of current national life."

Leonard C. Howitt,
City Architect, Manchester.

Manchester 2.

Discount on p.c. Item.

To the Editor of *The Builder*.

Sir,—In the specification for rebuilds there is very often a p.c. sum for fireplaces. There is usually a builder's discount of from 15 to 25 per cent. off these articles. Generally speaking, this has been looked on as the builder's discount, but in one or two cases the owner or the new purchaser has considered that he is entitled to this discount.

I should be interested to hear your readers' views on this point. Builder.

SOCIETIES & INSTITUTIONS

R.I.B.A.

Archibald Dawnay Scholarships.

The works submitted by candidates for the R.I.B.A. (Archibald Dawnay) Scholarships will be on exhibition at the R.I.B.A., 66, Portland-place, London, W.1, from Monday, September 8, to Monday, September 15, inclusive. The exhibition will be open between the hours of 10 a.m. and 7 p.m. (Saturday, 10 a.m. and 5 p.m.).

The Scholarships are intended to foster the advanced study of all forms of construction, and are tenable at the Schools of Architecture recognised for exemption from the examinations of the Royal Institute.

Maintenance Scholarships in Architecture.

The R.I.B.A. announce that the following Maintenance Scholarships have been awarded for the year 1947-48 :—

An R.I.B.A. Houston Maintenance Scholarship of £125 per annum to Mr. D. N. Sutcliffe, of Welwyn Garden City, Herts.

An R.I.B.A. Fourth- and Fifth-Year Maintenance Scholarship of £60 per annum to Mr. Albert McCombie, of Insch, Aberdeenshire.

An R.I.B.A. Howe Green Fourth- and Fifth-Year Maintenance Scholarship of £40 per annum to Miss Ruth Pocock, of London.

The Maintenance Scholarships previously awarded to the following candidates have been renewed :—

Mr. H. W. D. Burgess (Welsh School of Architecture, the Technical College, Cardiff).—R.I.B.A. Houston Maintenance Scholarship of £125 per annum.

Mr. J. M. Phillips (Bartlett School of Architecture, University of London).—R.I.B.A. Houston Maintenance Scholarship of £125 per annum.

Mr. A. J. Mellor (Bartlett School of Architecture, University of London).—R.I.B.A. Howe Green Fourth- and Fifth-Year Maintenance Scholarship of £40 per annum.

Mr. E. Sheard (School of Architecture, King's College, Newcastle-upon-Tyne).—R.I.B.A. *Builder* Maintenance Scholarship of £60 per annum.

Prizes and Studentships: Mounting of Drawings.

The attention of intending competitors is drawn to item No. 3 of the General Conditions. In view of the difficulty of obtaining material for mounting drawings it has been decided to waive this regulation for the Prizes and Studentships offered for award this year.

THE INSTITUTE OF QUANTITY SURVEYORS

Annual General Meeting.

The sixth annual general meeting of the Institute was held recently at Caxton Hall, Westminster, London, S.W.1.

In his address the President, Mr. A. C. Remnant, F.I.Q.S., F.F.A.S., expressed the pleasure that it gave him to record the opening of temporary headquarters in London, and hoped that the diligent search now in progress for permanent accommodation would soon be rewarded.

He commented on the satisfactory financial position of the Institute, and on the steadily increasing membership. He approved the decision of the Council that subscriptions should not be increased at the moment, though he was aware that other institutes had found this measure necessary.

The following officers were elected : President, Mr. F. Biscoe Taylor, F.I.Q.S., F.F.A.S. Vice-Presidents : Mr. H. Fulford, F.I.Q.S., Mr. J. Gregg, F.I.Q.S., Mr. J. L. Jackson, F.I.Q.S., P.A.S.I., A.I.A.S., and Mr. H. A. L. Tozer, F.I.Q.S.

Council : Messrs. J. F. Bayliss, W. Clark, G. Dodsworth, B. Foster, J. Lester, R. McA. Campbell, W. J. Martin, H. Mottram, J. V. Price, S. W. Spencer, L. E. Wheble, and J. Youdan Briggs.

Branch Representatives on Council : Messrs. A. G. Blasby, F. Horsfall, F. Illidge, H. V. Mace, S. O. Phillips, and J. Saxon. Hon. General Secretary and Treasurer : W. J. Masterman.

Heating Engineers' Golden Jubilee.

The Institution of Heating and Ventilating Engineers celebrates its golden jubilee this year. On October 7 a banquet and dance will be held at the Savoy Hotel, London, and on the following day a special autumn meeting of members will take place at which Mr. C. G. Vokes, A.M.I.Mech.E., will read a paper on "Air Filtration," and Mr. C. G. Carrothers will speak on "District Heating."

Enterprise Scotland 1947.

Shop windows in Princes-street, Edinburgh, are taking part in the "Enterprise Scotland" Exhibition. The windows of fourteen shops will each display one chapter of the story, starting with the Scotland of the present day and leading up to the climax of "Enterprise Scotland" Exhibition, which opens in the Royal Scottish Museum on August 25. Included in this mile-long serial story will be "Design for a Road," built round the model of the proposed Forth Road Bridge; "Scottish Weavers," with weavers working shifts throughout the day; and "The Idea Takes Form," a display showing the growth of a piece of machinery from the drawing-board to the finished article. The fourteenth window, "Export," shows a map of the world, above which is a large model of a thistle. Thistledown floats away from this in the form of small parachutes, each of which carries a crate containing a Scottish export. The whole series has been designed by Mr. James Gardner, who designed "Britain Can Make It," and is now Chief Designer to the Enterprise Scotland Exhibition.

NEW TOWNS AND THE LOCATION OF INDUSTRY

AN ADDRESS BY SIR THOMAS BENNETT

SIR THOMAS BENNETT, C.B.E., F.R.I.B.A., chairman of the Crawley and Three Bridges Development Corporation, speaking at Ashridge College on Sunday, July 27, on the occasion of a week-end school on town and country planning organised jointly by Ashridge and the Town and Country Planning Association, gave a detailed analysis of the problems of location of industry as related to the development of new towns.

Sir Thomas said: Industry during the last 150 years has been developed in Great Britain on the basis that it was essential to earn a living and to produce goods. The primary and basic activities have overridden all other considerations, and have resulted in the erection of factories, the sinking of coal mines, and the development of transport, regardless of the underlying human factor which we now realise is essential to the happiness and efficiency of the nation. The cardinal principle of good living has somehow slipped away in the course of the transfer of the population from agricultural to industrial conditions.

The two wars which have occurred in our lifetime have caused large sections of the community to come in contact with each other and to understand each other's problems. When the disorganisation and disturbance of to-day's conditions have settled down we justifiably hope to find a far greater amount of sympathetic good will and humanity than that which existed in the days of our grandfathers. We have come to realise that many people are housed in unsatisfactory conditions, and that their working conditions leave much to be desired. We are therefore faced with two problems:—

1. To redevelop the existing industrial areas on a large and far-reaching scale;
2. To create new industrial areas.

It is necessary to examine the reason which has caused industry to develop in the places in which we find it now. It is also necessary to examine the advantages as well as the disadvantages which have grown up around those present locations.

Raw Materials.

It is clear that the first condition which dictated the position of an industry was the existence of basic raw materials, and as this country built up its industrial wealth upon the basis of coal and iron, therefore the original industrial population gathered round the coal and iron deposits. The coalfields are in Staffordshire, the Bristol area, Northumberland, Durham, Scotland, Yorkshire, and Nottingham. So far as relocation of coal is concerned, clearly nothing can be done; it must be dealt with in the positions which the raw material dictates.

Other industries for other reasons are in positions which are static—stone quarrying, slate quarrying, brick-making, grain and milling at the ports.

Other industries have been located because certain requirements of manufacture were better dealt with in certain definite parts of the country—e.g., the climate of Lancashire was particularly suitable for the manufacture of cotton; in certain areas water was particularly favourable for brewing. These local conditions are by no means as rigid as they were, since a great many of the essentials which previously had to be found in nature can now be produced artificially, so that this is tending to loosen the bond which tied industry to these positions.

Other industries in the country started as cottage industries and were, therefore, very widely distributed over large areas. In certain cases private enterprise and individual efforts gradually collected the product of these cottage industries and marketed them in a general way, and then as machinery started to be developed factories were erected, which more and more anchored the industry to the factory; the cottage industry gradually gave up manufacture in the home, and the factory units requiring large outputs to pay its overheads located industry as a matter of accidental growth. Industries which have been subject to this kind of collection are such things as shoe-making and weaving.

More and more manufacture has been concentrated in the requirements of individuals in the population, and therefore the consumer position of the large towns, as distinct from the raw material position, has led to the growth of industries, particularly what might be called "end" industries, around the big centres of populations. The population factor, therefore, becomes important, in many cases overrides other considerations, and will be further dealt with as we go along.

The original fuel of this country was coal; it is still coal. In the past it has been cheaper to bring other raw materials to the coal than it has been to take the coal to the raw materials. To-day the fuel position is changing because basic fuel is not always used in the form of coal. It may be distributed in the form of gas or electricity, or it may be used in the form of fuel oil imported from other countries.

In order to get a correct picture of the advantages and disadvantages of the industrial areas as they now exist it is necessary to subject them to a certain measure of analysis, otherwise we shall be apt to overlook some of the outstanding points which need consideration in thinking of new locations.

Frequently the financially stable type of industrialist is most ready to move. While encouraging enterprise, the industrial estate needs sound manufacturers, and these must eventually be in a substantial majority.

The factories having been brought into existence for one or other of the reasons given in our first sub-section, operatives have collected around them. Those operatives have acquired a certain measure of skill, and they have found homes. The higher measure of skill required by the industry the more difficult it is to move it without incurring serious shortages of skilled labour, or, alternatively, facing big operations in the way of rehousing the populations. It is common experience that the population puts up a good deal of passive resistance to movement because of the breaking of human ties, dislocation of human occupation, and all the other things which bind most of us to the environment in which we have lived for a number of years.

Housing.

In the present industrial areas housing has been provided for the working population, and it is no answer to our present study that in many cases these houses are bad or inadequate—they do, in fact, exist, and if an industry is to be moved one has to contemplate building houses to accommodate the workers in the new position. At a time like the present when many houses have been demolished by war, and therefore must be rebuilt in any case, it is clearly a very strong argument to move the houses and the population to a better and more congenial situation, and the total cost to the national purse is the lowest it is ever likely to be.

In addition to the houses there have, of course, grown up around the inhabitants the subsidiary buildings which are needed for their normal conditions of living. The shops, the cinemas, schools, places of entertainment, and occupation of various kinds—all of which, if the population is moved, will become partially occupied, perhaps financially embarrassed, and which, in any case, will need replacement when the operatives and the industry are moved. Much of this possible loss of expenditure is hidden in the sense that there will be no immediate disaster to the shop or the cinema. It will gradually decay, and will cause loss of wealth, greater or lesser in degree, according to the size of the population movement.

Again, in the centres of manufacture and industry, the skilled industries have brought into existence training colleges, polytechnics and craft schools of various kinds, together with the teachers. Insofar as attempts are made to move industries with a high craft potential, those schools and training facilities must be moved as well. At one time I myself gave considerable attention to technical education in the building crafts, and in the professions connected with building, and it became clear that unless centres of education could be maintained in positions in which their population—*i.e.*, their students—were drawn from a very wide circle of people, the maintenance of the top classes became extremely difficult. The teachers are expensive, the classes tend to be small, and cease to be good educational units unless they have a certain minimum number of attendants, and only large centres of population provide the substantial numbers of advanced students needed. Therefore, splitting the training of a craft over a number of areas brings in its train potential training difficulties which are serious. This educational problem, particularly the advanced educational problem, is a matter which must be considered when industry is moved.

Local tradition is one of those intangible things which become extremely important in every activity. It is built up by word of mouth, by discussion, by emulation, by competition, by community of interest. When I examined some of the problems connected with shoe-making I found that the industry ascribed the superiority of many classes of shoes manufactured in this country over other countries to tradition.

Concentration produces a pool of trained labour. This has many advantages: (1) The fact that the factory can obtain trained employees to make good normal wastage, and to take over increases in production from time to time; (2) the individual has a choice of employment in his industry. It is very difficult to reproduce these pools of trained labour when old industries are moved, or when industry rises in a new location.

Ancillary Industries.

Industries need for their successful operations a number of subsidiary factories. In many cases they have grown up in the neighbourhood of the main factory; thus the component parts, the boxes and packages, the printing, are available in the immediate vicinity. They save travelling, and it is possible to interchange views rapidly between the manager of the main factory and the managers of the subsidiary components. If the basic factory is moved to another neighbourhood, then clearly many of those ancillaries remain at a substantial distance and this interchange of commodity and of personal view is much less easy.

The machinery of industry needs a considerable amount of maintenance. In many cases the individual factory provides its own maintenance, but in other cases the maintenance is provided by the manu-

facturers of machines, and it is a great advantage to have the production factory near the machinery factory.

Having considered some of the factors which determined the location of factories as we see them to-day, and some of the advantages which this location has caused to grow up, it is now desirable to look at some of the factors which have varied.

The first factor which has made us much freer to move factories than was the case in a previous generation is the development of transport—road, rail and water. It is clear to all of us that in the days of the horse and cart transport had a very big influence on the location of industry. When the railway arrived it in turn facilitated development, but still maintained it on rigid lines over which the railway travelled, and tended to concentrate development around railway goods yards, or railway centres, or, alternatively, around the ports and the rivers, where sea transport or canal barge was able to feed the factory. The development of road transport has led to very much greater freedom in the positioning of the factory, and in the case of goods of relatively light manufacture, where handling is easy, the passing of these goods from the factory to the lorry, transport by the lorry to the point of sale, has varied the whole conception of the transport of materials as it was known even 30 years ago.

The development of artificial humidity, solution of technical difficulties otherwise dictated by location, and the freedom which this artificial condition gives to the location of the building is in many industries far reaching, and has contributed very largely to our ability to move some of our industries from the bad conditions under which they at present operate.

Electricity, gas and oil as fuels have largely supplanted the use of coal, and but for the fact that the initial manufacture of these fuels, in the economic sense, is inefficient, this freedom from the dictates of coal would have been much greater. It is still an anomaly of the use of electricity that the coal taken from the mine, delivered to generating stations in very large quantities, turned into electricity and delivered to the point of use, still costs very much more than is the case with more direct use of coal in the form of steam raised by local plant, or of coal in use in the house. There is room for very great improvement in the cost of electric generation.

In spite of cost, electricity and gas have many advantages with which we are all familiar, and therefore they contribute to the freedom with which industry can be moved.

The number of people employed in "end" industries or the manufacture of consumer products has increased very substantially and still shows signs of increasing. Most of these industries are light in character, and many of them are entirely, or very largely, manufactured by automatic machines. They can be put anywhere, and the bulk of the manufactured article is very frequently much greater than the bulk of the basic materials of which it is made.

All of these factors combine to make the "end" or consumer industries most susceptible to movement, and there is a tendency to think in terms of these industries when we are talking of the creation of a new industrial centre. They have the disadvantage that to a large extent they employ light labour—*i.e.*, women or juveniles—and only to a small extent male labour, and therefore while cleanliness and certain other factors are in themselves attractive, they have other disadvantages if a proper survey is made of the whole of the requirements of an industrial population.

Movement of Population.

The population has moved very substantially in this country over the last 50 or 100 years, showing, of course, greater and greater tendency to concentrate around London. This has meant that industries which exist far removed from the centre of population are faced with very considerable transport costs, and those industries which are inside the centre of population are faced with extremely unsatisfactory working conditions. These are among the many factors which tend to locate the industries within reasonable distance of their sales point—*i.e.*, the bulk of the population.

Finally, our unfortunately close experience with war has shown all too clearly the desirable factor which war introduces of dispersing industry. During the war every important industry was considered from the point of view of survival under the worst conditions of bombing, and it may be that in any long-term planning we still have to give some attention to this war factor.

Having dealt with all the material considerations which have been outlined in these first few paragraphs, the fundamental fact which will affect us is our changed outlook to the conditions under which work should be carried out, conditions under which people should live; and to a greater extent than has been the case for very many years we are becoming acutely conscious of the difficulties which existing working conditions create. I do not think it would be true to say that these conditions have never been realised before, but it is probably true to say that they are being given over-riding consideration, and that other factors are being given a small place in general economic study. For instance, if the choice is between good working and living conditions and a substantially increased cost of transport, we should not hesitate a moment in our decision. If in order to get these better working conditions, very substantial capital expenditure is needed, our social conscience to-day would demand expenditure of that capital. In the Victorian mind at certain periods, the direction of public thought would have led to a precisely opposite decision, and therefore, as so often happens, the sociological and psychological factors far outweigh the material factors. We are determined to bend the material factors to our requirements and to secure these psychological and sociological ideals which we now consider to be essential to the lives of every inhabitant, great or small.

There are certain cases in which an individual factory can take a site in the middle of the country, can build its single unit and operate as a single unit with a small community around it. Certain large manufacturing units derive great advantage from this circumstance. There are also other disadvantages, but they are individual decisions. When considering the location of industry, we must consider the location of a considerable number of units, and these have many factors which need thought in building up the whole. My mind, for this purpose, is turning to the new towns which it is proposed to erect around London. They are not the only means of relocating industry, but they do bring to light a number of the important factors which should be considered, and it may therefore be convenient to have them in mind when we are traversing these factors.

An early consideration of transport shows that it is divided under two headings:

(1) The transport of the raw material to the factory.
(2) The transport of the finished goods to the consumer.

The new towns around London are obviously well placed to serve London and to serve certain of the other towns on the coast of England or the Midlands, so that from the point of view of transport there is a great deal of argument for placing these towns in suitable positions on the London perimeter. Other factors, such as the desire to maintain a green belt between London and any more growth, make undesirable the development of factory areas as mere appendages of the present London population. Many of the raw materials arrive in heavy and concentrated form, and may come from very considerable distances, and therefore the site of the factories, and, incidentally, the towns, must have good rail communication, as well as good roads, and, if possible, water communication.

Balanced Employment.

If a number of industries are to be concentrated into the basis of a town, and that town is to grow up around this group of factories, then clearly the labour which the factories employ must be balanced properly in proportion to the working population as to men, women and juveniles. Those of us who are responsible for framing a factory policy should endeavour to attract to the towns industries which employ a proper proportion in each of these groups, and this, incidentally, means that we should welcome the heavier and perhaps less attractive industries, even to the extent of dealing with those which may have noise and smell, in order that we may provide good living conditions for the type of person who normally has worked in the heavier and older industries under bad conditions.

I also think it is necessary that we should avoid a series of factories all entirely different from each other, because by so doing we should give the individual no choice of employment. Discharge for any reason from one factory as the result merely of disagreement with the foreman or management, would throw this person out of work with little hope of being re-employed, and therefore wide and very dissimilar series of industries should not be housed in one town.

For the same reason entirely dissimilar industries do not give rise to that pool of trained labour which is a characteristic of the old town, and so there should be some similarity between the type of work which is introduced into the town. It does not necessarily follow that all the industries should be similar—in fact, it is extremely undesirable that they should be part of the same trade group.

Some measure of variety is necessary in order to mitigate trade slumps, which in the worst cases may be universal, but in less serious cases are frequently confined to certain groups of goods. Therefore we require on the one hand a certain similarity of some factories to provide choice of employment, pools of trained labour, and so forth, and we require some measure of variety in order to mitigate trade slumps.

The considerations which need the judicious selection of the factory will also dictate the extent to which it is possible to provide adequate technical education to the workers in those factories. We all agree that technical education, and technical education of a really advanced character, is essential if English industry is to take its proper place in the world and therefore must give this factor important consideration.

The education problems are intensified in providing proper facilities for research.

We are all realising that there is a very great advantage to every class of the population if a town consists of people of all

classes. People with different outlooks, different interest, different ideals, nevertheless having the common interest of a good town of which they can be proud and in which they can take an interest. There are certain industries which employ a very high percentage of low-grade workers. These can best be accommodated in very large communities where they may be offset by other factors which tend to accumulate a number of high-grade workers because of the concentration of professions, or amusement, or other things which employ the professional man, the artist and so forth.

In dealing with a new town, especially in the early days of its growth, it may not be possible to attract to it the right proportion of professional men and women, the right proportion of people with leisure to give to public service, and therefore some eye should be cast on the industry which has a high percentage of technical or professional employees and acts as a very great leveller of the type of person in the community as a whole.

Local Traditions.

The building up of local tradition is a slow process; it is an essential process; it is something which, because it has arrived in towns in a haphazard and unnoticed manner, is apt to be overlooked. It is nevertheless something of the greatest importance. Local tradition in anything is a very great advantage. Local tradition in the professions can be fostered by the interchange of views, by discussion, by the natural inclination of such people to try to impart knowledge. Local tradition of a more empirical order is less easy to pass on and less easy to create. Manipulation of the hands, of the fingers, the physical working of certain trades, has nothing like so much interest from the point of view of talking about it, nothing like so much technical detail to impart in the form of lectures or tuition, but something which is of very great value to be learnt in the way in which the operation is carried out. The great trade guilds of this country stretching through the Middle Ages realised this factor to the full. They fostered skill, they fostered empirical knowledge. Because of the absence of other types of learning they turned it into something which was regarded as a secret, and indeed it undoubtedly was a secret, since so few people of that stage of national development could find out how something was made by deduction. A lot of this necessity has gone, but the need for building up a traditional way of making shoes, a traditional way of making clothes, a traditional skill in building, a traditional skill in furniture manufacture, and so on, still remains. Therefore, in choosing the factories to be located in the new towns, some eye to the need for having an underlying tradition must be a factor.

Working Conditions.

No one can think in terms of fresh location without also taking into account the living and working conditions of the personnel, from the managing director to the lowest operative. The factories themselves can work more efficiently if they are in open surroundings, if they can have an attractive setting of flowers and grass, if their workers can be given first-class canteen accommodation; and we have also realised by grouping industry, not necessarily confined to industry of the same kind, a great many common factors can be provided, both for the buildings and the workers :—

(a) The area can be served under certain conditions by district heating;

(b) Electricity and gas can be fed in mains of adequate size, pressure can be maintained, possibly dual or alternative supply can be made available;

(c) Railway facilities can be provided;

(d) Adequate road facilities can be provided;

(e) It is possible to establish a general inquiry bureau, both for those people requiring space, those people wishing to contact the owners of factories to sell goods, and those wishing to buy;

(f) There can be a central Labour Exchange where the worker can apply for his job in very close proximity to the job itself, and where a proper efficient manager or staff on the Labour Exchange can inspect the welfare conditions and the general working arrangements of the factory or industrial unit as a whole;

(g) Internal transport facilities can be good, including the provision of protected bus stations and standing points, frequent bus services, adequate train services, and proper facilities for the storage of bicycles. The canteen and welfare conditions of an industrial area can be collected together, and really first-class facilities can be provided in the industrial area for the workers, thereby enabling those in the smallest factory to have facilities which are on a level with those normally able to be provided only in the largest factories.

On the other hand, if the town with its industrial population is of a reasonable size, the facilities in general which are provided in certain directions will be provided for the working hours and for the leisure of the population at one and the same time, so that we hope, in a town of 50,000 inhabitants, to find that the distances between the homes of the workers and their working places, whether they be manual workers, brain workers, or members of the management and administrative staff, will have good canteen and other facilities at the works, but will be sufficiently close to their homes for all normal indoor and outdoor recreational facilities to serve equally well for their week-end relaxation and for their evenings. This means that the town must be so laid out that the passage to and from the residence and the factory is good, easy, short, able as far as possible to be accomplished on bicycles, or even on foot, as well as the normal means of bus and train.

Other Factors.

Some of the physical factors which govern the building up of the industry of a new town may make interesting points for discussion. There is a great deal of difference of opinion as to the total land area which is likely to be required when the industrial area is fully developed. These estimates vary from 350-400 acres up to 700-800 acres. It is anticipated that some 8,000 people out of a population of 50,000 will be employed in factory production of some kind or another. It would seem that the maximum size of a factory, from the point of view of employees, in a town of 50,000 people, would be 500 workers, thus preventing an undue proportion of the workers being attached to one employer, and therefore finding themselves unemployed if by any chance they offend that management or get out of work, and while no one would regard this number as rigid, it has certain advantages if it can be kept in general.

It is necessary to have four or five types of industries, apart from subsections. The operatives in the factories should be distributed according to the employment schedules of the Ministry of Labour, as between men, women and juveniles, and some heavy industries should be included to take advantage of those men physically highly developed and not necessarily having high mental equipment. The layout should be spacious, so that there are good light and air conditions in every factory.

Provision must be made to deal with trade waste and effluent, and with the discharge of such things as smoke and fumes, in a way which will not affect the population. It may be accomplished partly by treatment, partly by the provision of our old friend the chimney. It would seem that, under modern conditions, road and rail transport are disproportionate, and that not more than 20-25 per cent. of the factories at the most will ever need direct rail access.

This, of course, gives very great freedom in planning of the individual factories. It can be accepted that the factory to-day is capable of being designed as an architectural unit, suitable for erection close to main roads, visible to the public, and attractive to the public.

A good factory area, or industrial area, in a new town should include units erected by the town or by a trading estate, capable of being let to tenants who have, not yet reached the stage at which they wish to sink their capital in their own building. Alternatively, during a period of growth, many firms prefer to rent a factory until they can ascertain the probable size which will represent their optimum manufacture from the point of view of layout.

While a single industrial area is highly desirable, it does not seem desirable to limit the industrial area to one spot. There may be very great advantages in having one or two subsidiary areas in different parts of the town, so that as many workers as possible are close to their homes. This particularly applies if we in this country wish to make use of part-time women's work. Workshop areas for the purpose of many of these points of discussion should be included under the general term of factory areas.

The amenities of the population must grow up side by side with the development of the factory. The population, to be happy, satisfied, contented and willing to work hard, must have a good place to work in, a good place to live in, satisfactory places at which to purchase their requirements, in the form of shops or stores, and attractive and adequate facilities for indoor and outdoor amusement.

HOUSING AND TOWN PLANNING LAW LECTURES

MR. JOHN J. CLARKE, M.A., F.S.S., Barrister-at-Law, Legal Member of the Town Planning Institute and author of several works on the law of housing and planning, will resume his lectures on this subject in the Department of Architecture and Building of the South-West Essex Technical College and School of Art, on Wednesday, September 24, at 6.30 p.m. The lectures, which are part of the Town Planning Course, are intended in general for all who are interested in contemporary legislation in the fields of Housing and Town and Country Planning, and in particular for the Planning and Clerks' Staffs of Local Authorities. The lectures have also been designed to cover the syllabuses for the law papers of the forthcoming examinations of the Town Planning Institute, and particular reference will be made to the provisions of the Town and Country Planning Act, 1947. Full particulars, including a syllabus of the lectures, can be obtained free of charge on application to the Head of the Department of Architecture at the College, Forest-road, E.17.

PLANNING SURVEY AND RESEARCH

ADMINISTRATION AND ORGANISATION OF WORK

An indication of the administration and organisation of planning authorities for carrying out survey and research work in connection with the requirements of the Town and Country Planning Bill was given by Mr. W. L. Waide, D.T.P. (Lond.), A.M.T.P.I., when he addressed a week-end course on "Town and Country Planning," at Ashridge College, organised jointly by the Town and Country Planning Association and the College.

We take the following extracts from the speaker's remarks :—

Within the next few days there will be placed on the Statute Book the direction that a nation-wide survey must be made through the agency of the local planning authorities.

I am quite sure that the Minister, when he introduced into the Bill the important provision relating to the making of surveys, was, in fact, accepting the plea that has been made from year to year at meetings of this School, in published works, and elsewhere, that planning decisions should only be made on the basis of ascertained facts, facts of undoubted authenticity. The plea was generally expressed in fairly wide terms relating to the need for a clear appreciation of the geographical, the physical, the economic and sociological factors governing any town or area under review. I doubt very much whether any of the advocates could have stated precisely what they really meant if they had been challenged, but the challenge has now come from the Minister himself, because in his "Second Reading" speech he referred to "the co-operative effort of economists, geographers, sociologists and other professions which would be needed to secure that all the facts about an area are known, including the characteristics and wishes of the people themselves." We are, therefore, faced at this school with the problem of justifying our theories and translating into more precise form what we really mean.

The war caused a complete cessation of normal development, and the opportunity occurred for what must now be accepted as a revolution in planning thought—namely, the universal acceptance of a doctrine by no means new, that physical planning cannot be divorced from all those aspects of human environment which contribute towards a complete life.

Important as this revolution in thought has been, it was accompanied by a development of fundamental importance to the planning movement which is not yet fully appreciated—namely, the development of the machinery of government. The imperative need in war-time to make the best possible use of all our resources and to co-ordinate the efforts of all the people resulted in the Government accepting the responsibility for making overall decisions in many fields of human activity in which they had not previously dared to venture—and this is the point I want particularly to emphasise—they accepted the responsibility of co-ordinating the work of Government Departments and other agencies, so that those decisions became effective policy.

As you will all know, part of the machinery of co-ordination was effected by the setting up of a regional organisation—admittedly much abused—which resulted in decentralised Government Departments working in close association and sitting as equal members on all Regional Inter-departmental Committees, through which part of the machinery of government operates.

The war-time experience of working in close association made clear the importance of assessing the effect of any one decision on the work of all Departments, who were able to assess the implications at the time of the decision and initiate action to meet difficulties that might arise.

This machinery, developed during the war, is still in operation, and in these two parallel advancements of planning technique and the machinery of government it is to the credit of the present Government that they have come so far towards the marrying of these developments and the establishment of a creative planning machine.

What we must now be clear about is: What will be the functional relationship between the Central Government and local planning authorities; what will be the levels at which executive responsibility will be carried, and what information or survey work will be required at each of those levels in order that the executive function can be effectively discharged? For instance, who is going to decide, and on what information, the future size of our towns and villages, including the location of new towns? What new industries will be allowed to develop within those towns, and conversely in which towns shall we discourage further industrial development? Who is to decide, and on what information, the location and extent of a national park or the location of village colleges?

The Planning Levels.

I feel it is essential that the relationship between survey and planning and planning administration should be clearly understood. Like the Government, they are indivisible, and I venture to suggest more harm has been done to the planning movement by the production of over-elaborate and occasionally unnecessary surveys than by any other factor. So for the purpose of this paper I have ventured to suggest a planning framework against which we can measure the survey needs. First, I would like to make clear what I mean by the different planning levels.

1. The National Level.

2. The Regional Level.—The regional organisation previously referred to and set up for the purpose of the war has only been slightly adjusted, and it will be familiar to most members. I think it must be assumed that the areas are now established units of Central Government, and will remain more or less as they are for the time being. I feel I should make the point, however, that from a planning point of view the ideal region would be one based on a major regional town like Birmingham or Manchester, and extending to include an area over which the town exercises an economic and social influence. I appreciate that the need to keep to local government boundaries makes this impossible.

3. The County Level.—Again we have to accept the Administrative County as now existing as the County unit, although ideally I consider that the most suitable unit would be one based on the County Town and including all the area over which it exercises an influence.

4. The District Level.—This comprises a sub-regional town or a group of towns and the surrounding country over which the town or towns exercise a direct sphere of influence. This level approximates to the old Joint Committee area and will represent under the new planning set-up an Area Committee of the County or the area of a Joint Board.

5. The Local Level.—This comprises an urban unit which can be a single community or a group of communities functionally inter-related. Under the new planning set-up this level would represent the towns and larger villages within the County organisation and also the administratively independent County Boroughs.

6. The Detailed Level.—This represents those areas within an urban community which are the subject of special and detailed consideration for immediate development or for redevelopment, including blitz reconstruction.

This system of inter-related levels allows for all the administrative arrangements envisaged under the new legislation. The County Council will be responsible for levels Nos. 3 and through such organisation as they set up for levels 4, 5 and 6, and Joint Boards constituted under the Act will cover levels 4, 5 and 6, and County Boroughs will be primarily concerned with levels Nos. 5 and 6. At each of these levels, plans will be required They will differ from one another in form and in character, but they will need to be closely inter-related

Duties and Responsibilities.

It will be the duty of the Regional level to interpret the National Policy in relation to the particular part of the country and on the basis of all the other information, such as the location of industry, housing standards, Service requirements and National Park and holiday needs, to assess the population targets for all the urban areas within the Region, so that the detailed planning can be based on these forecasts.

In regard to Industry, the National level will be responsible, as in fact it is now, for the general policy respecting the distribution of industry throughout the whole country, which carries with it matters of employment policy. The work in the Development Areas is well known to all and is an example of the implementation of National policy.

The Regional level has a particularly important part to play in interpreting National policy and co-ordinating the Regional requirements. The detailed investigation of towns and particular industries calls for general policy decisions for each particular town and area, which will result in guidance being given at Regional level to all new and expanding industries, and for which additional provisions are included in the Bill.

The responsibility, therefore, resting at the County level will be primarily one of interpretation of the Regional policy and the assessment of implications which may arise.

The District and Local levels will be chiefly concerned with the allocation of sites to meet particular industrial needs, although it may be assumed that the County level will also have a general co-ordinating interest.

I would like, however, to pause at this stage and consider the purposes for which the survey information will be required. The Bill provides for the submission of a survey and report to the Minister, and it is assumed that the examination of the Outline Plans will be partly based on the interpretation of the survey material. Survey and information is, however, of equal if not more importance in the day-to-day administration of a Planning Department. A Planning Department can only operate efficiently if it has readily

available the current information respecting the whole of the Authority's area. It will be on the basis of that information that the everyday planning problems are assessed and resolved. It is essential, therefore, that the survey information should be designed from the outset to meet this requirement.

Further, the Planning Department has already become, in most of the Authorities, the centre of information for all Local Authority activities, and is being increasingly drawn upon by outside agencies.

Standards for Physical Planning Requirements.

There is a further important use of Survey, which has not yet been fully developed—namely, the assessment of standards for all physical planning requirements. Admittedly many standards, *e.g.*, open space, school sites, etc., have now been agreed. There are, however, many aspects of physical planning, particularly the Central Area redevelopment requirements, for which adequate standards have not yet been set, and they can only be arrived at after a detailed study of the position in a number of existing towns, carefully grouped to allow a comparison between towns of similar functional importance. This aspect of what is, in fact, Research, would be required to be carried out either by the Ministry or by the University Research organisations, and their work would be facilitated if the local surveys were carried out in a manner which would allow for the collection of detailed information necessary as the basis for this type of research.

The point I want to make in an examination of the Survey requirements of the various subjects is that, although the information will be required at the levels shown, it will in general only be collected or assembled at one of the levels. This is an important aspect of Survey technique, because it envisages a very close working arrangement between the levels and a free flow of the information from one level to another. I consider it essential, therefore, that it should be laid down in any regulation that the Minister may make relating to survey requirements that information assembled at one level must be made available to all the other levels or Planning agencies, and, in addition, must be available to other Planning Authorities.

Unless we can assume that there will be a free flow of survey information, plans cannot possibly be prepared in a realistic manner.

Responsibility for Initiation.

We next come to the question of which level will be responsible for initiating the various surveys. There are three criteria to consider :—

(i) The need for the particular information in relation to the work of the level;

(ii) The sources of available information; and

(iii) The skill available for the purpose of interpreting the information.

Let us take the subject of population. It is necessary to have information showing the population distribution. This information is available from national sources and requires a high degree of skill in its interpretation and presentation. It would therefore appear appropriate that the regional level should be responsible for the preparation of information regarding population distribution sufficient for all purposes, down to the district or local level. It will be necessary, however, for the purpose of measuring deficiencies in terms of social services, etc., in the urban areas that a much more detailed map be prepared. This would probably take the form of a "Dot" distribution map, compiled from information collected in the field, at the same time as that for the detailed land utilisation survey. This information would only be used at the detailed and local levels.

Similarly changes in population and age structure are aspects requiring a high degree of skill in their interpretation. This information again is available from national sources, and therefore the regional level should carry the responsibility of interpreting this information on a uniform basis and distributing it to all planning agencies.

Dynamic Surveys.

I would like to draw the attention of the School to another aspect of survey which, as time goes on, I feel sure will become of special importance, namely, the recording of change. One of the important objects of survey which we have been discussing is to record at a given moment the rigid form of town structure, the type and condition of housing, the location of industry and the business areas, of open spaces and the other aspects of town life.

The structure of a town, however, does not remain static. The pattern of neighbourhoods and land uses varies as the town grows or changes its function. The rate of change varies from town to town, and according to different circumstances, so that the state of affairs *producing* these changes is of paramount importance to the science of planning. A new conception of one of the principal purposes of survey is required, namely, this dynamic function sensitive to all the changes and recording them so that their cumulative significance can be appreciated and interpreted. We must, therefore, think of survey in *two quite distinct parts*; one, the static form, and, two, the dynamic; and we must appreciate that a particular static survey does not become out of date, but is in fact the basis from which the changes can be measured.

The Minister of Town and Country Planning has appreciated the importance of this aspect of survey, because he requires under the Bill that the surveys must be revised at least once in every five years. I suggest, that, for the purpose of adequately recording the development and change of a town, it would be necessary to institute a revision system at more frequent intervals and as part of that revision system I would like to see the production of an annual or biennial report by the Town Planning Department on the work of the Department, the Report to include an analytical inquiry into the changes that have taken place during that period.

Organisation of Survey Work.

Survey work demands a high degree of organisation and skill. It is obvious that the Ministry through its regional organisation must play a very large part in the collection, collation and distribution of survey material. It must also accept the responsibility for initiating those surveys which require a high degree of skill and which it would be uneconomic to carry out at a lower level, although any such work must have regard to the purpose for which it will be used. I consider, however, that it is essential for each planning authority (as distinct from the levels) to have available on their staffs an officer or officers who are trained and able to interpret information of a specialist character coming from the regional level. To what extent it would be possible to employ the appropriate type of officer would largely depend on the size of the authority and its economic resources.

Many planning authorities will have problems which require specialist's knowledge and it would, accordingly, be appropriate for those authorities to employ highly-skilled advice specially for those purposes. For instance, the planning authorities with a large amount of coal mining would require a mineral surveyor on their staff.

It should be made clear, however, that specialist officers should be given very definite directions regarding the form in which the specialist advice is to be presented.

A highly technical report on a specialist subject is of little or no value to a planning officer. He requires that report to be translated into a form which he can use in terms of detailed planning.

An Independent Team.

The general organisation of survey work should take the form of a team working independently. The members of that team should be relieved of administrative responsibility and allowed to devote the whole of their time to the work. They should be specialists in particular aspects. In general, the organisation of a county borough and a joint board survey department should present no difficulties. The team would be working on a confined area of a highly detailed character, and the strength of the team would largely depend on the size of the problem. A county, however, is a different proposition. A county will be responsible for preparing all the different types of plans from the county level down to the detailed level, and, as we have seen, the county level has an important part to play in the collation of information which is passed up from the different levels. The important question is whether a county should arrange for a central team to work on a more detailed aspect of survey in the urban areas or to decentralise part of the team so that there are a comparatively small number of officers in each of the county areas working on the local surveys. My own view is that survey technique will become highly specialised, and, according to the experience of the officer, so will the speed at which the work will be accomplished vary. In this connection, field experience will play an important part, and there would therefor appear to be a case for the county to organise its survey work so that a mobile team would operate from the county headquarters for the purpose of the routine detailed surveys required at the local and district levels.

It is essential, however, that there must be in each area office one or more permanent survey officers to secure continuity and for the purpose of interpretation. For this survey work I envisage the recruitment of a new type of officer, preferably with a broad university education, and basically trained as a geographer, economist or sociologist, but, as I have said before, working to limits set by the planners.

There remains the question of the use of an independent survey team. The examples of their work in this country are amongst the best we have. The West Midland Group Report of Herefordshire is outstanding, as also is Max Lock's work in Middlesbrough. In areas with special problems—particularly where a group of authorities is concerned—there is much to be said for the independent approach, and I can envisage their continued use to the general advancement of planning.

HOUSING PROGRESS

JUNE FIGURES

THE monthly housing progress reports, presented to Parliament as White Papers* by the Minister of Health and the Secretary of State for Scotland, show that 11,922 permanent houses were completed in Great Britain during June (bringing the total to 111,587). This compares with 11,759 during May and 9,720 during April. The number of temporary houses finished in June was 4,120 compared with 4,415 in May and 4,947 in April. The total of temporary houses completed at the end of June was 115,329, and the total of new houses, permanent and temporary was 226,916.

During June homes were provided by new building, repair of uninhabitable houses, conversion and requisitioning for 21,347 families, compared with 21,101 in May and 19,605 in April.

The position in Great Britain at June 30 was as follows :—

ALL HOUSES (permanent and temporary, local authority and private enterprise).

	Total at June 30.	*Increase or decrease on May 31.*	*May increase or decrease on April.*
Houses completed— (Permanent 111,587 ; Temporary 115,329)	226,916	16,042	16,174
Houses under Construction— (Permanent 242, 286 ; Temporary 7,335)	249,621	7,758	7,368
Houses Projected but not begun— (Permanent 112,947 ; Temporary 36,215)	149,162	—11,044	—9,109
Total Built, Building and Projected— (Permanent 466,820 ; Temporary 158,879)	625,699	12,756	14,333
Total number of Families Housed— (By new building, repair of uninhabitable houses, conversion, and requisitioning)	432,067	21,347	21,101

PERMANENT HOUSES : Division between local authorities, private enterprise and Housing Associations—(Great Britain).

	Houses completed at June 30.	*Inc. on May 31.*	*May inc. on April.*	*Houses under construction at June 30.*	*Inc. or dec. on May 31.*	*May inc. or dec. on April.*
Local Authority	54,431	7,788	7,203	189,422	7,535	8,014
Private Enterprise	44,038	2,862	3,179	27,719	—530	—781
Housing Associations	1,529	157	200	6,334	558	597
Government Departments ...	234	49	44	1,964	217	99
War Destroyed Houses Rebuilt—						
Local Authorities	4,343	280	246	3,631	—115	1
Private Builders	7,012	786	887	13,216	434	354
Total	111,587	11,922	11,759	242,286	8,149	8,284

Taking England and Wales only, the position was :—

	Houses completed at June 30.	*Inc. on on May 31.*	*May inc. on April.*	*Houses under construction at June 30.*	*Inc. or dec. on May 31.*	*May inc or dec. on April.*
Local Authority	46,820	7,102	6,564	159,308	6,689	7,359
Private Enterprise	42,855	2,731	3,082	25,109	—563	—858
Housing Associations	302	29	102	1,072	128	358
Government Departments ...	234	49	44	1,867	185	65
War Destroyed Houses Rebuilt—						
Local Authorities	4,072	280	225	3,214	—115	22
Private Builders	6,992	772	887	13,127	448	341
Total Permanent Houses (England and Wales)	101,275	10,963	10,904	203,697	6,772	7,287

Housing Labour Force.

The total labour force employed on the construction or epair of houses in Great Britain fell during June from 536,200 to 531,200. There were 240,600 men engaged on the construction of permanent houses and preparation of housing sites compared with 236,500 at the end of May, and 11,900 on erection of temporary houses, compared with 14,000 at the end of May. The number on war damage repairs dropped from 106,000 to 99,000.

Note :—A new system of return of the number of employees in the building and civil engineering industries has now been instituted by the Ministry of Works. In view of the change in the basis of collecting the data, and of the possible incompleteness of the new return, comparisons of the numbers engaged on new housing at end of January and at end of June respectively might be misleading.

SUMMARY OF HOUSING PROGRESS REPORTS.

	England and Wales.		*Scotland.*		*Great Britain.*	
	June 30.	*May 31.*	*June 30.*	*May 31.*	*June 30.*	*May 31*
Completed Houses—						
Permanent	101,275	90,312	10,312	9,353	111,587	99,665
Temporary	97,751	94,645	17,578	16,564	115,329	111,209
Total	199,026	184,957	27,890	25,917	226,916	210,874
Under Construction—						
Permanent	203,697	196,925	38,589	37,212	242,286	234,137
Temporary	4,677	5,127	2,658	2,599	7,335	7,726
Total	208,374	202,052	41,247	39,811	249,621	241,863
Tenders Approved (*a*) (Local Authorities)	280,284	271,552	60,493(*b*)	59,917(*b*)	340,777	331,469
Licences Issued (*a*) (Private Builders) ...	76,829	75,057	4,039	3,860	80,868	78,917
Families Rehoused	399,028	379,842	33,039	30,878	432,067	410,720
Housing Labour Force (*c*)	476,800	481,700	54,400	54,500	531,200	536,200

(*a*) Includes houses under construction and houses completed.

(*b*) Only includes houses covered by licences issued by local authorities on behalf of the Ministry of Works as from August 1, 1945.

(*c*) Does not include German prisoners engaged on preparation of sites.

* Cmd. 7176 Housing Return for England and Wales, June 30, 1947. H.M. Stationery Office, price 9d., post free 10d.

* Cmd. 7177 Housing Return for Scotland, June 30, 1947. H.M. Stationery Office, price 3d., post free 4d.

HOUSES FOR MINERS

MR. BEVAN'S ADDRESS TO HOUSING AUTHORITIES

THE Minister of Health (Mr. Aneurin Bevan) last week addressed about 200 representatives of 62 housing authorities in mining areas on methods by which more houses can be built for miners. The meeting was held at the Ministry of Health, in London.

Mr. Bevan said that the country must have more coal; therefore there must be more houses to accommodate the extra miners. After he had explained that mining areas will get the large majority of 15,000 permanent aluminium houses which are being offered in addition to existing housing schemes, he asked for immediate co-operation in this project, and also that sites should be made available at once for aluminium houses.

The meeting unanimously endorsed the principles of the Minister's speech.

Mr. Bevan said that there were two methods by which houses could be provided—by traditional building and by prefabrication—and when the available skilled labour in an area was fully employed the only way in which to increase house production was to employ non-traditional methods.

Long before the present crisis arose, the question of considering the aluminium house as a permanent and not a temporary house had been considered, and, on the best possible advice, he was satisfied that with the modifications now incorporated it justified in every way the classification of permanent and not temporary.

"One hundred and sixty houses a week will come off the belt at each of the two factories which are producing these 15,000 houses," said Mr. Bevan. "And we must have sites prepared for them far in advance, because, once produced, the houses cannot be stored." In order to be sure of keeping up with production it was essential that at the end of this year there should be in the hands of the manufacturers particulars of sites for 11,750 houses, 7,500 of which should have been slabbed, and sites for 4,250 should be fully developed and in course of being slabbed.

He appealed to local authorities who had asked for a share of these additional aluminium houses and who had sites acquired for permanent housing schemes to turn those sites over at once for the erection of aluminium houses. He asked authorities who had shown unwillingness to take aluminium houses but who had sites available to recognise the urgent need and to take advantage of this offer of additional housing over and above their existing housing schemes. Finally, he asked authorities which had no sites in their possession to do all they could to speed up the preparation of their schemes.

"For our part, we shall do all we can to help you," Mr. Bevan went on. "We are providing a first priority for housing in mining and agricultural areas."

In reply to questions, the Minister said that the general idea was that something like 75 per cent. of the aluminium houses specially allocated should be devoted to the needs of incoming miners. This would still leave 25 per cent. as an additional contribution to the needs of miners already living in the areas concerned.

Change of Address.

The National Housing and Town Planning Council has now changed its address to 42, Devonshire-street, London, W.1. Telephone : Welbeck 8440.

IN PARLIAMENT

Cement Production.

MR. W. GRIFFITHS asked the Minister of Works if he could give information about the level of cement production in recent weeks.

MR. KEY said the weekly production of cement had risen from 144,000 tons at the beginning of June to nearly 165,000 tons for the week ending July 28. Production in the last fortnight was at a higher annual rate than the average annual rate in 1938, but whether it could continue at this high level depended, of course, on the continued supply of coal to the industry.

The detailed figures of recent production were as follows:—

Week ending	9.6.1947	144,054 tons
" "	16.6.1947	143,383 "
" "	23.6.1947	152,691 "
" "	30.6.1947	146,059 "
" "	7.7.1947	150,707 "
" "	14.7.1947	155,897 "
" "	21.7.1947	157,837 "
" "	28.7.1947	162,913 "

MR. DOUGLAS MARSHALL asked the Minister of Works to what extent he had explored the possibility of using lime as an alternative to cement; what examination had been made of this matter; and whether any report had been issued.

MR. KEY said that lime was not a general substitute for cement, but it could be usefully employed in mortar for brickwork and for certain types of rendering, and was, in fact, commonly used for those purposes. A number of reports on the use of lime had been published by the Building Research Station.

Bricks or Breeze Blocks?

MR. J. E. HAIRE asked the Minister of Works if he was satisfied that the supply of bricks was adequate to avoid the use of breeze blocks in new house building.

MR. KEY said that the supply of bricks should be adequate to meet the needs of new house building given a sufficient supply of fuel for the brickworks. Clinker blocks of British Standard specification were, however, of particular value for the inner leaf of external walls and for partitions.

Brick Subsidy.

COLONEL STODDART-SCOTT asked the Minister of Works if he was prepared to grant a subsidy to West Riding brick manufacturers who had vast quantities of bricks in stock and were closing down owing to lack of orders, so that they might sell bricks to the North-Eastern area at a price similar to firms receiving a Government subsidy; why a subsidy of £62,000 was being paid to the London Brick Co.; and if he was aware that this subsidy had enabled the London Brick Co. to deliver bricks in Scotland at a price which had caused Scottish brickyards to stop manufacturing bricks and dismiss their employees.

MR. KEY said that the temporary scheme of assistance to brickyards in financial difficulty owing to lack of orders expired at the end of last month and he was not prepared to revive it. No brickmakers in West Riding had taken advantage of the scheme. No subsidy had been paid to the London Brick Co., but, owing to the shortage of bricks in Scotland a year ago, certain Scottish local authorities bought a number of Fletton bricks and were refunded the difference between local prices at Scottish brickyards and the cost of Fletton at the appropriate Scottish railhead. He was not aware that any Scottish brickyard closed as a result of that transaction.

Zinc Sheets.

MR. SPARKS asked the Minister of Works if he would introduce a system of priorities in the distribution of zinc sheets, in view of the fact that supplies were limited and were not, under present arrangements, always used for the most urgent purposes or distributed fairly.

MR. KEY said that the shortage of zinc sheets was not so acute that he should feel justified in imposing restrictions at this juncture, but if his hon. friend could give him any instances of urgent work being held up he would have them investigated.

Labour-Saving Devices.

MR. GRANVILLE SHARP asked the Minister of Works whether there was any appreciable evidence that, since 1938, the average builder engaged in the housing programme had substantially increased his use of mechanical appliances and labour-saving devices; whether any failure in this respect was due to the inadequate supply of such appliances; and what action he had taken to stimulate their production.

MR. KEY said that the use of mechanical and labour-saving devices had increased since 1938, though not to a substantial extent. There was, however, evidence of increasing interest on the part of builders and contractors in the possibilities of further mechanisation. One of the main difficulties was the design and production of appliances which could be used on an economic basis by the small and medium-sized builder, and his Department was engaged in the development and testing of new appliances and in bringing satisfactory designs to the attention of all concerned.

MR. GRANVILLE SHARP asked the Minister of Works what action he was taking, or proposed taking, to give full publicity to the mechanical aids and scientific methods which might be used to economise labour in the house-building industry and accelerate the erection of houses.

MR. KEY said that the normal channel of publicity for these items was through the Technical Press. In addition, his Department organised, or assisted in organising, exhibitions of mechanical aids intended to economise labour in building. These mechanical aids were also brought to the notice of one of his Advisory Committees on which both sides of the industry were represented, so that they might draw the special attention of their members to them in suitable cases.

Building Contractors: New Registrations.

MR. J. E. HAIRE asked the Minister of Works if he would state the increase or decrease in the number of building contractors during the past year and the average number of employees employed by each.

MR. KEY said that during the period July, 1946, to June, 1947, 41,298 new firms registered as building and civil engineering contractors, and the increase in the number of firms reported to be in actual operation was 22,187. Information as to the number of persons at present employed by those newly registered firms was not available.

Hedges Round the Parks.

SIR THOMAS MOORE asked the Minister of Works whether it was proposed to replace the railings around the royal parks, or whether he had any permanent alternative in mind.

MR. KEY said that there was no present intention of replacing the former high iron railings around the royal parks. In place of these it was proposed to plant hedges, protected where necessary by low steel mesh fencing. In places where hedges could not be planted, it might be necessary to resort to some other kind of fencing.

Private Enterprise Houses.

MR. WALKER-SMITH asked the Minister of Health what was the total number of houses so far built by private enterprise builders under their own specification for sale to local authorities, in accordance with the provisions of his Department's Circular 92/46; and whether he would separately include such totals in the Housing Returns and the figures for individual local authorities in Appendix B thereof.

MR. BEVAN said that the number was 1,467. He would consider including information on this point in the monthly return.

Scottish Housing.

MR. J. L. WILLIAMS asked the Secretary of State for Scotland if he was yet in a position to make a statement regarding the Government's intentions for the implementation of the recommendations in the Scottish Housing Advisory Committee's Report, Modernising Our Homes.

MR. WESTWOOD said that the Government had given careful consideration to the question of the improvement of existing houses, in relation to the housing programme. They remained of opinion that for the present the most urgent need was to concentrate on the building of new houses as much labour and materials as could be made available. They intended, however, to include in their housing programme provision for the improvement of existing houses in Scotland and to make available financial assistance to local authorities in town and country for approved proposals (whether carried out by the local authority or by other persons) in order to secure work of a good standard and accommodation at approved rents. Proposals would be worked out in detail in consultation with the Associations of Local Authorities, and legislation would be introduced so that facilities might be available as soon as the situation in regard to labour and materials justified this expansion of the programme.

Imported Baths.

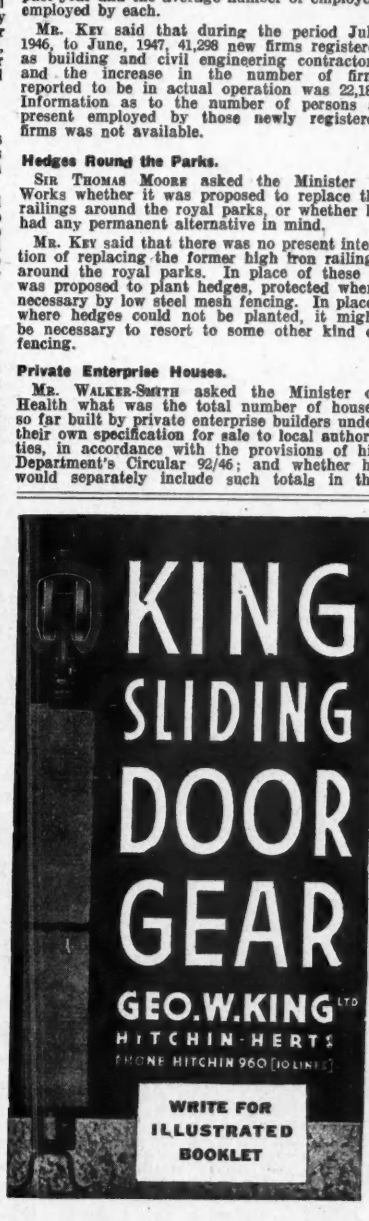
MR. MARPLES asked the Minister of Supply how many baths had been imported from France; what price they cost; and at what price they were retailed. He also asked to what extent the present demand for baths in this country was greater than the current British production; and to what extent had the importation of baths been authorised.

MR. WILMOT, Minister of Supply, said it was expected that sufficient baths would be made in this country during the next year to meet essential requirements as estimated by the Ministry of Works. There had been 2,379 baths imported from France at a cost of £14 each for the temporary housing programme. Licences had also been issued for the import of 4,000 Hungarian baths.

MR. MARPLES: How can you reconcile the importation of baths at £14 each with the fact that during the six months to June, 1947 we have exported 3,000 baths at £8 each?

MR. WILMOT: Baths at £8 each are low-priced baths of good quality produced under Government control. The baths which are being imported are more expensive and are being sold by private enterprise.

MR. HOGG: Will the Minister give an assurance that there will be sufficient houses to put the baths in and enough hot water to use them.



ECONOMY IN LEAD

M.o.W. MEMORANDUM

A MEMORANDUM—"Lead, No. 3"—superseding all previous publications concerning economy in lead, was recently issued by the Ministry of Works. The Memorandum states: Lead is generally the most suitable material for many purposes in building construction. There is, however, a world shortage, and the amount allocated for use in the manufacture of sheet and pipe for building construction is less than the estimated total requirements for this purpose. To ensure that what supplies are available shall be used to the best advantage, it is essential to restrict the use of lead to those purposes where alternative materials are either unsuitable or undesirable. The release of lead pipe and sheet will be regulated as shown [see page 190] until further notice.

The position will remain serious for some considerable time, but as soon as it is possible some easement of the restrictions will be made. Some suggested alternatives to lead are listed: not all of them may be readily obtainable in all cases.

Where the use of "lead" pipes is indicated, consideration should be given to the use of lead alloy pipes (conforming with British Standards Nos. 1085: 46 and 603: 41), but where these are not available the weights of ordinary lead pipes for new and repair work are not to exceed those specified in B.S. No. 602: 1945.

(a) Lead will not be available for the use of items such as hip and ridge coverings, door hoods, coverings to masonry projections, cramps and dowels, etc., not mentioned below, except where alternative materials are impracticable.

(b) In all cases a maximum length of 3 ft. of lead pipe may be used where necessary to provide fixing tolerances at connections to fittings.

(c) Where special circumstances are mentioned below, lead may be used if the water undertaking or the public health authority has evidence that the use of the alternative suggested would cause pollution of the water or corrosion of the pipes or cisterns due to the nature of the water or subsoil in a particular area. The water undertakings are being advised of the shortage of lead and are being asked to agree to the use of substitutes where this is practicable. If the water undertakings feel that they must insist upon the use of lead they will secure the agreement of the Ministry of Health or the Department of Health for Scotland.

(d) When using aluminium or aluminium alloys as alternatives to lead, only those known to be suitable for the purpose (such as those specified in the recommendations) should be employed. Due regard should also be given to the circumstances in which they are being applied, so that suitable protection against corrosion may be provided where required. Thus, if the aluminium or aluminium alloy comes into direct contact with other metals or cement, mortar, etc., or is exposed to water draining from cement, mortar, etc., the aluminium or aluminium alloy should be given some suitable protective treatment such as a bituminous coating.

NEW WORK.

Description.	*Restriction on Lead.*	*Alternatives.*
Main Roof Coverings, Flats, etc.	Lead not to be used.	Bituminous Felt B.S. No. 747: 37 or 989: 44. Mastic Asphalt B.S. No. 988: 41 or Natural Asphalt B.S. No. 1162: 44. Aluminium BS/STA7 (A3, A4D) or Aluminium alloy BS/STA7 (AW3C).
Damp Proof Courses.	Sheet Lead or Lead cored felt not to be used.	Slates, Engineering Bricks, Bituminous Felt or Copper Strip to B.S. No. 743: 41, Mastic Asphalt to B.S. No. 1097: 43.
Gutters or trays in cavity walls.	Lead may be used not exceeding 3 lb. per sq. ft., but its use is prohibited where plain bending only is involved as distinct from dressing to irregular surfaces.	Bituminous Felt to B.S. No. 743: 41. Lead cored felt. Copper.
Cold Water Pipes (Internal).	Lead may only be used in special circumstances (see introductory notes).	Galvanised Steel Tubes B.S. No. 789a; 40, Copper Tubes B.S. No. 659 : 44, Wrought Iron Pipes B.S. No. 788: 38, subject to the consent of the Water Undertaking. Tin or lead coated copper pipes may be used where water is acid.
Cold Water Service Pipes Underground.	Lead may only be used in special circumstances (see introductory notes).	Copper, Galvanised Mild Steel B.S. No. 789a: 40. Wrought Iron, subject to the consent of the Water Undertaking. For pipes 1½ in. dia. and over Cast Iron may be used B.S. No. 78 : 38. Tin or lead coated copper pipes may be used where water is acid.
Hot Water Pipes.	Lead may only be used in special circumstances (see introductory notes).	Galvanised Steel Tubes B.S. No. 789a: 40. Copper Tubes B.S. No. 659 : 44 or B.S. No. 61: 1913. Wrought Iron B.S. No. 788: 38. Tin or lead coated copper pipes may be used where water is acid.
Soil and Soil Vent Pipes.	Lead not to be used.	Cast Iron B.S. No. 416 : 44. Asbestos Cement B.S. No. 582: 45, or Copper.
Waste and Waste Vent Pipes.	Lead may only be used for length not exceeding 5 ft. for connections between sanitary fittings and gulleys, hopper heads or stack pipes	Cast Iron B.S. No. 416 : 44. Asbestos Cement B.S. No. 582 : 45, Copper, Mild Steel or Wrought Iron B.S. No. 788 : 38.
Joints in Soil, Waste and Vent Pipes, Gas Mains, Gas Service Pipes and C.I. Drains.	Lead may be used where the alternatives are unsuitable.	Bitumen Mastic, Cement Mortar, Asbestos Compound, Flexible joints of rubber with lead tips.
Joints in Water Mains, and Water Service Pipes.	Lead may be used.	Flexible joints of rubber with lead tips.
Soldered Joints, lead to lead or lead to brass.	Ordinary wiped joints not to be used.	1. The Cup and Cone or Finger Wipe Joint. 2. The Spigot and Socket Joint. 3. The "Amalgaline" Joint. 4. The "Staern" Joint. For particulars of Joints Nos. 1, 2 and 3, see B.S. No. 219 : 1942, Memorandum No. 3: 1943.
Traps.	Lead not to be used except in special circumstances.	Brass, Copper B.S. No. 1184: 44, Cast Iron B.S. No. 1291: 46. When permitted lead traps to B.S. No. 504: 44.
Flush Pipes.	Lead not to be used.	Light gauge welded steel tube B.S. No. 1125: 45 or Copper B.S. No. 659: 44.
Rainwater Pipes, Fittings and gutters.	Lead may only be used for outlets to flat roofs. Lengths not to exceed 3 ft.	Cast Iron Pipes B.S. No. 460: 44, Gutters B.S. No. 1205: 45. Asbestos Cement B.S. No. 569: 45. Pressed Steel B.S. No. 1091: 46. Zinc or copper (B.S. in preparation). Aluminium alloy B.S./STA7 (AC4, AC6, AW9)—a B.S. for such rainwater goods is in course of preparation.
Valley Gutters.	Lead may only be used for sloping valley gutters in slated or interlocking tiled roofs where irregular dressing is involved. Not to be used for horizontal gutters where practicable alternatives are available.	Bituminous Felt B.S. No. 747: 37 or 989: 44. Pressed Steel B.S. No. 1091: 46. Cast Iron or Asbestos Cement B.S. No. 569: 45. Zinc or Copper. Aluminium alloy B.S./STA7 (AC4, AC6, AW9).
Flashings and Soakers.	Lead may only be used for:— (*a*) Leadwork round base of Chimneys (but not on felted roofs). (*b*) "Lead Slates" as weatherings to vertical pipes passing through roofs covered with slates, tiles, corrugated steel or asbestos cement. (*c*) Ventilator cowls and ducting exits as for (*b*) above. (*d*) Flashings of roofs of irregular contour, e.g., pantiles or corrugated asbestos cement sheeting. (*e*) Side and bottom flashings to patent glazing in pitched roofs. In respect of the above exceptions the maximum thickness of lead to be used is (*a*) 5 lb. per sq. ft., (*b* to *d*) 4 lb. per sq. ft. Soakers and (*e*) not to exceed 3 lb. per sq. ft.	Where lead is not used flashings may be formed of Zinc B.S No. 849: 39, Copper B.S. No. 899: 40, Bituminous Felt B.S. No. 989: 44, slate creasing or Aluminium B.S./STA7 (A3, A4D) or Aluminium alloy B.S./STA7 (AW3C). Note.—Consideration should be given at the design stage to reduce to a minimum construction work involving flashing.
Gas Supply and distribution pipes.	Lead may only be used for connections to meters, not to exceed 3 ft. for each meter.	Steel tube B.S. No. 789a: 40. Brass, Copper or Wrought Iron tube B.S. No. 788: 38.
Flushing Cisterns.	Lead-lined flushing cisterns not to be used.	Pressed steel, Plastic, Cast Iron or Sanitary Pottery, Copper.
Storage Cisterns and trays.	Lead linings may only be used in special circumstances. (see introductory notes).	Galvanised Steel B.S. No. 417 : 44, Asbestos Cement, Copper.
Patent Glazing.	Limited amounts of lead are available for roof lights only.	Aluminium B.S./STA7 (A3, A4D) or Aluminium alloy B.S./STA7 (AW3A, AW5A, AW10A).

MAINTENANCE AND REPAIRS.

The following recommendations are intended to cover minor repairs which do not involve extensive replacements. Cases of major repairs involving extensive replacements should be regarded as new work covered by the preceding section. Items not mentioned below are subject to the same restrictions as for new work.

Roof coverings.	Lead available to limited extent.	Make good with bituminous compound or repair with fabric and bituminous emulsion or solution, or repair with reinforced or un-reinforced bituminous felt according to the size and circumstances.
Valley Gutters.	Lead available to limited extent.	As for new work.
Cold and Hot Water Pipes, Underground cold water service pipes and gas supply and distributing pipes.	Repairs to existing lead installations should use the minimum length of new pipe.	
Connections between W.C. pans and soil pipes.	Lead may be used where essential.	

NOTE.—(i) BS/STA7 mentioned in the "Alternative" Column refers to the "Services Schedule of Non-Ferrous Metals and Alloys, Group 6, Aluminium and its Alloys, May, 1945." Issued for the Ministry of Supply by the British Standards Institution, 28, Victoria-street, London, S.W.1, price 1s., post free.

(ii) Old Lead obtained in the course of alteration or repair work should be returned as salvage.

PRIORITY OF BUILDING MATERIALS

CHANGES IN W.B.A. SCHEME

THE Minister of Works, after consultation with representatives of building contractors, distributors and building material manufacturers, is introducing changes in the materials priority distribution scheme (W.B.A. scheme). The effect of the changes is to make a large reduction in the number of items, the distribution of which is controlled, and to introduce statutory sanction for the use of priority certificates in connection with the remaining items.

The change is brought about by an Order which the Minister has made (S.R. & O. 1947, No. 1698), the title of which is: The Control of Building Materials (No. 1) Order, 1947.

The Order covers the following materials and fittings: Building bricks (commons and facings and in quantities of not less than 1,000), rainwater gutters, rainwater pipes and soil pipes whether of cast-iron or asbestos cement, and their fittings; hardwall plaster, plasterboard, domestic type baths of cast-iron or pressed steel, domestic type lavatory basins and sinks other than stainless steel, w.c. pans, lead sheet, lead pipe and copper pipe of certain gauges and bores, domestic ranges and stoves of certain types, clear sheet glass from 18 oz. to 32 oz., metal electrical conduit and boxes, electrical 3-pin plugs and sockets up to 15 amp., electrical main switches, switch fuses, fuseboards of domestic types up to 60 amp., and electrical wall and ceiling switches of domestic type up to 15 amp.

The Order makes it unlawful (*a*) to acquire or seek to acquire any of these goods for which a priority certificate has been given in excess of the quantities in the priority certificate itself; (*b*) to supply or offer to supply scheduled goods requested in accordance with the priority certificate in excess of the quantities stated in the priority certificate; and (*c*) to supply goods of the same kind as have been ordered under a priority certificate otherwise than to meet that priority order or another order also placed under a priority certificate so long as such priority orders have not been met.

The Order comes into force on September 1. A month's deferment is, however, granted so far as the offence at (*c*) above is concerned to enable order books to be re-examined. An explanatory memorandum is to be issued by the Ministry of Works, setting forth in detail the procedure to be followed to meet the terms of the Order.

DECENTRALISATION OF BUILDERS' REGISTER

THE Register of Builders* has been decentralised from 51-54, Gracechurch-street, London. All new applications for registration and communications regarding existing registrations should be made to the Office of the Ministry of Works for the Region in which the contractors' permanent office is situated. The addresses are as follow:—

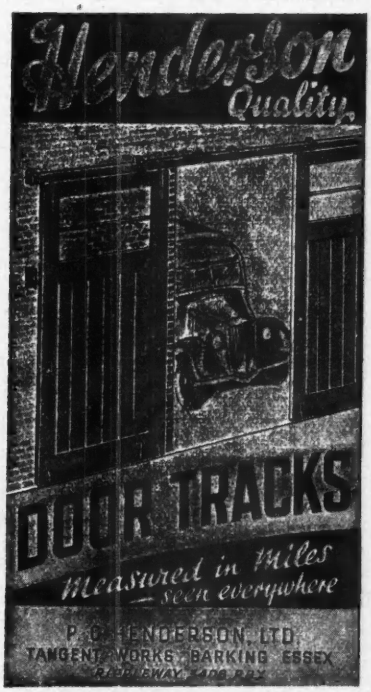
Government Buildings, Broadway West, Gosforth, NEWCASTLE-ON-TYNE, 3; Government Buildings, Lawnswood, LEEDS, 6; Government Buildings, Clifton-boulevard, Lenton, NOTTINGHAM; Shaftesbury-road, Brooklands-avenue, CAMBRIDGE; 6-19, Cornwall-terrace, Regent's Park, LONDON, N.W.1; Whiteknights-road, Earley, READING; 5, Priory-road, BRISTOL; Somerset House, 37, Temple-street, BIRMINGHAM, 2; 76, Newton-street, MANCHESTER, 1; Forest-road, Hawkenbury, TUNBRIDGE WELLS. In SCOTLAND to the Under-Secretary, Scottish Branch Headquarters, Ministry of Works (B.C.E. Reg.), 9, George-street, EDINBURGH, 2. In WALES to the Director, Central Office for Wales, Ministry of Works (B.C.E. Reg.), 42, Park-place, CARDIFF.

* Under Defence Regulation 55AB it is necessary for a person carrying on a business as a building or civil engineering contractor to have a Certificate of Registration from the Minister of Works.

PAYMENT FOR BUILDERS' PUBLIC HOLIDAYS

AN agreement dated June 25, 1947, has been made between the National Federation of Building Trades Employers, the National Federation of Building Trades Operatives, the Federation of Civil Engineering Contractors, and the Operatives' Panel of the Civil Engineering Construction Conciliation Board, providing for payment in respect of public holidays in the building and civil engineering contracting industries. The agreement comes into operation as from September 1 next, and will be operated by the fixing of stamps to cards in a Public Holidays Book. The stamps and books will be obtainable from the Building and Civil Engineering Holidays Scheme Management, Ltd., 82, New Cavendish-street, London, W.1, who are responsible for administering this scheme.

Every employer operating the annual holiday scheme will receive a copy of the public holiday agreement and a communication from the company as to the supply of stamps and cards. Further copies of the agreement (price 6d. each) may be obtained from the National Federation of Building Trades Employers, 82, New Cavendish-street, London, W.1, or from the Federation of Civil Engineering Contractors, Romney House, Tufton-street, London, S.W.1.



NEWS ITEMS

Handling and Storage of Coal.

The Committee on the Efficient Use of Fuel of the Ministry of Fuel and Power have issued Efficiency Bulletin No. 49, "The Handling and Storage of Coal." Details are given of methods of stocking, the prevention of overheating of coal in stock and the measurement of coal stocks.

Prague International Fair.

The Prague International Fair is to be held from September 5-14 this year. Details of travelling facilities are obtainable from Mr. Karel Gurth, Director, Tourist Traffic Department, Czechoslovak Ministry of Foreign Trade, 35, Pont-street, London, S.W.1.

New Bank Escalator.

A new escalator will be opened to the public at the Bank Central Line station at the end of this month. It is 103 ft. long and 51½ ft. deep. The completion of the escalator has been specially speeded to give improved travel facilities at Bank which is one of the most heavily used stations on the Underground.

B.S. for Wrought Steels.

Particular attention is called to the revision of B.S. 970 for wrought steels, which has just been published. It has been revised and amplified to cover the needs of the general enginering industry, including the automobile industry. As a comprehensive schedule of the steels used throughout the general engineering industries, this British Standard should be invaluable. Copies can be obtained from the British Standards Institution, 24, Victoria-street, London, S.W.1, price 10s. 6d., post free.

Industrial Accident Prevention.

Sir Charles Bartlett, Managing Director of Vauxhall Motors, Ltd., and Mr. G. P. Barnett, H.M. Chief Inspector of Factories, are amongst those who will speak at the National Safety Congress to be held at Brighton and Hove in October. The congress is being organised by the Royal Society for the Prevention of Accidents, which this year celebrates its silver jubilee as a national organisation. The sessions will be open to all, whether members of the Society or not.

The industrial sessions will include two papers on safety methods in American factories. Another session which promises to be of great interest arises out of experiments now being made in the safety training of foremen and supervisors by means of discussion group methods. The more detailed matters to be discussed include noise abatement in industry, floor surfaces and their effect on falling accidents and the guarding of milling machines. The main industrial sessions will begin on Tuesday, October 7, and end on the afternoon of Thursday, October 9. Full particulars of times, fees, etc., may be obtained from the Industrial Safety Division, R.S.P.A., 131, Sloane-street, London, S.W.1.

TRADE NEWS

Handbook on Floors and Roofs.

A new handbook has been published by the Kleine Co., Ltd., 9-13, George-street, Manchester-square, London, W.1. Containing several illustrations and drawings, the handbook describes in detail the firm's products, Kleine floors and roofs. They are constructed of burnt clay hollow-bricks and tiles, both of high compressive strength, in conjunction with concrete and mild steel reinforcement. Being of *in situ* construction, Kleine floors and roofs entail the use of temporary centering. This may be of timber or of metal. In order to minimise the demand on timber supplies, the products are now centered with the "Tellok" Patent Extensible Steel Centre.

THE SCOTTISH BUILDER

NEW BUILDINGS

Douglas.—Lanarkshire C.C. to carry out extensions at Public school. Architect: Mr. W. Watt, Albert-st., Motherwell.

Dumbartonshire.—New memorial halls to be erected at Paladin and Rampart-avs., Drumchapel, from plans in the hands of Mr. A. W. Campbell, Lyndhurst, Drumchapel.

Garscube.—New building at Netherton for MacLean, Milngavie, for which the architects are Messrs. W. F. Campbell & Partner, 307, West George-st., Glasgow.

Glasgow.—At Lede-rd., four houses to be erected by Ford Brothers, contractors, 159, Paisley-rd. West, from plans by Messrs. Whyte & Nicol, 31, North Frederick-st., Glasgow.

Glasgow.—Alterations and additions for Messrs. Bowie, at Strathclyde-st. Architects are Messrs. Miller & Black, 132, West Regent-st.

Glasgow.—Alterations and additions at 52 to 56, Victoria-rd., to be carried out by Messrs. McDowall, Morrison & Co., Ltd., 3 to 5, Nursery-st., Glasgow.

Glasgow.—Alterations at Robertson-st. and lane, for Findlay, Ltd., for which the architects are Messrs. John McKissock & Son, 56, West Regent-st., Glasgow.

Glasgow.—Alterations at Cecil-st. Architects are Messrs. Burnet & Boston, 180, Hope-st., Glasgow.

Glasgow.—Alterations for Glasgow and West of Scotland P. I. Co., Ltd., at Kingsborough-gdns. The architects are Beveridge & Dallachy, 248, West George-st., Glasgow.

Glasgow.—Alterations to be carried out at 148, North Woodside-rd., by Messrs. A. McEwan & Co., Ltd., North Woodside-rd., Glasgow.

Stonehouse.—New garage to be erected, also extensions to Kirk-st. buildings. Architects are Messrs. Gavin, Paterson & Son, 6, Cadzow-st., Hamilton.

FUTURE CONSTRUCTION

CONTRACTS OPEN

For some contracts still open but not included in this list see previous issues. Those with an asterisk are advertised in this number. The dates at the heads of paragraphs are those for the submission of tenders; a dagger (†) denotes closing date for applications; the name and address at the end refer to the person from whom particulars may be obtained.

BUILDING

AUGUST 25.

†***Hartismere R.D.C.**—20 houses in three parishes. L. Barefoot (A.), architect, The Thorofare, Ipswich. Dep. £2 2s.

†**Northants Standing Joint Committee.**—3 police houses at 2 sites. County A.

Shoreham-by-Sea U.D.C.—80 houses at Stoneyla. estate. J. Dunn, E. and S. Dep. £3 3s.

***Swansea C.B.**—Rebuilding B.B.C. Buildings, 32, Alexandra-rd. Cyril A. Hughes (L.), 51, Walter-rd. Dep. £2.

Wymondham.—4 houses, Spooner-row. R. O. Bond (F.), Mountergate, Norwich. Dep. £1.

AUGUST 26.

Willesden T.C.—20 houses at Compton- and Pember-rds., and 14 at College- and Mortimer-rds. B.E. and S. Dep. £2 2s.

AUGUST 27.

Hatfield R.D.C.—12 permanent houses. Birchwood estate. J. H. Parker (A.), North-pl., 82, Great North-rd., Hatfield. Dep. £2 2s.

Kiveton Park R.D.C.—30 Airey houses at 3 sites. S., Council Offices. Dep. £2 2s.

***Teignmouth U.D.C.**—40 houses at Coombe Valley estate. F. H. Clinch, S. Dep. £3 3s.

AUGUST 30.

Bingham R.D.C.—20 houses with external site works, contract "Bingham, No. 2"; roads and main drainage, contract "Radcliffe-on-Trent, No. 1"; 22 houses with external site works, contract "Radcliffe-on-Trent, No. 2" S., Council Offices. Dep. £2

†**Cambridge T.C.**—Junior and Infants' School at Trumpington. B.S. Dep. £5 5s.

Dorchester R.D.C.—14 houses at Meadow-cl., Chickerell. F. E. Jay, M.Inst.R.A. (L.), 58, High West-st., Dorchester, Dorset. Dep. £2 2s.

Kingsclere and Whitchurch R.D.C.—4 pairs of houses with drainage, etc., at site No. 24, Station-rd., Whitchurch. F. Henshaw (F.), Westminster Bank-chambs., Andover. Dep. £2 2s.

Kingsclere and Whitchurch R.D.C.—7 pairs of houses with drainage and external services at site No. 46, Egbury-rd., St. Mary Bourne. F. Henshaw (F.), Westminster Bank-chbrs., Andover. Dep. £2 2s.

SEPTEMBER 1.

***Leeds (Mental Health Services Committee).**—8 staff cottages, Meanwood Park Colony. J. Squire Hoyle, Executive Officer, 25, Blenheim-terr., Woodhouse-la., Leeds 2. Dep. £2 2s.

Portsmouth T.C.—Lock-up garages at Police Headquarters, Southsea. R. Lewis Reynish (A.), Kent Lodge, Queen's-cres., Southsea. Dep. £2 2s.

Shepton Mallet U.D.C.—30 houses at Compton-rd. estate. C. Dep. £2 2s.

SEPTEMBER 5.

***Lincoln C.C.**—Additions to house at Anwick Fen Smallholding. C.A.

***Warwick C.C.**—Various maintenance and new building works. C.A.

SEPTEMBER 6.

Elgin B.C.—52 houses, Seafield Lands, Bishopmill. J. P. M. Wright, 82, High-st., Elgin.

SEPTEMBER 8.

***Beckenham B.C.**—Converting 45 Rectory-rd. into four self-contained flats. J. Dove, B.E. and S. Dep. £2.

Brentford and Chiswick T.C.—60 flats and estate office at Edensor-gdns., Chiswick. B.E. and S. Dep. £5 5s.

***Watford R.D.C.**—14 perm. houses, nr. Willoway, Radlett.C. Dep. £1 1s.

SEPTEMBER 9.

Chester County C.—Hutted kitchen and dining accommodation, St. Joseph's R.C. Sch., Sale; hutted classroom accommodation, Hazelgrove Sch.; completion of gymnasium, Co. Gram. Sch. for Girls, Sale. County A. Dep. £2 2s.

SEPTEMBER 13.

Salford C.C.—New domestic science block and canteen, Leicester-rd., Mod. Sch. for Girls. City E.Dep. £5 5s.

Weymouth and Melcombe Regis B.C.—Public conveniences, Upwey and Overcombe. Crickmay and Sons, 23, St. Thomas-st., Weymouth.

SEPTEMBER 15.

***Blackwell R.D.C.**—56 houses, Town-st., Pinxton. Architect and Housing Superintendent, 100, Chesterfield-rd. South, Mansfield Dep. £2 2s.

SEPTEMBER 16.

Warwick C.C.—Two police houses and office at Alcester-rd., Stratford-on-Avon. C. H. Elkins (L.), County A., Shire Hall. Dep. £2 2s.

SEPTEMBER 18.

***Hatfield R.D.C.**—12 perm. houses, 2 blocks of 4 flats each, Birchwood Estate. J. H. Parker (A.), North-pl., 82, Great North-rd., Hatfield. Dep. £2 2s.

SEPTEMBER 23.

***Hants C.C.**—Infants' school at Portchester. S. Low, County A., The Castle, Winchester. Dep. £1 1s.

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OCTOBER 13.

Tees Conservancy Commissioners.—Two reinforced concrete jetties, Teesport. Messrs. Rendel, Palmer and Tritton, 55, Broadway, Westminster, S.W.1. Dep. £20.

NO DATE.

Brentford and Chiswick B.C.—Sixty flats and estate office, Edensor-gdns., Chiswick B.E. and S.

Newburgh B.C.—22 houses, all trades. L. A. Rolland, F.R.I.A.S., The Albion House, Shorehead, Leven, Fife.

***Solihull U.D.C.**—Erection of Hatchford Brook Junior School and Ulverley Junior School. W. Maurice Mell, C.

Wing R.D.C.—Erection of 20 Airey houses, various parishes. H. A. Rolls (L.), F.S.I., 15, Bridge-st., Leighton Buzzard. Dep. £2 2s.

MISCELLANEOUS

AUGUST 25.

Battersea T.C.—Demolition of brick garden shelters. B.E. and S. Dep. £2.

Manchester C.C.—Demolition of shelters. City S. Dep. £1 1s.

AUGUST 30.

Bradford C.C.—Extension of heating system, Town Hall. City A.

Garforth U.D.C.—Demolition of shelters. E. and S. Dep. £1 1s.

SEPTEMBER 1.

Billericay U.D.C.—Collection and recovery of shelters. B.S. Dep. £2 2s.

SEPTEMBER 5.

East Suffolk Rivers Catchment Board.—Construction of 34 timber groynes and reconstruction of 11,000 lin. ft. tidal river wall, Aldeburgh. Board's Eng. Dep. £2 2s.

SEPTEMBER 6.

Evesham B.C.—Demolition of two static water tanks, construction of two underground reinforced concrete static water tanks. High-st., Evesham. B.S. Dep. £2 2s.

***Hertford Corporation.**—Stripping and reslating roof of Corn Exchange. B.S. Dep. £2 2s.

SEPTEMBER 8.

Rowley Regis B.C.—Dismantling 2,600 shelters. B.E. and S.

Workington T.C.—Construction of two million-gallon capacity service reservoir, etc. Herbert Lapworth Partners, 65, Victoria-st., Westminster, S.W.1. Dep. £5.

SEPTEMBER 10.

Wandle Valley Joint Hospital Board.—Retiling roofs of Cottages 1 and 2, Isolation Hospital, Mitcham Junction, Surrey. C.

SEPTEMBER 11.

***Lancaster C.C.**—Repointing exterior of Town Hall. C.E. Dep. £1 1s.

SEPTEMBER 15.

Newcastle-upon-Tyne C.C.—Supply, erection of steel-framed transit shed, No. 22 Berth, Newcastle Quay. City E.

NO DATE.

***Farnham U.D.C.**—Deep excavation work in clay subsoil and concreting for foundations for 50 houses. C.

PAINTING, ELECTRIC LIGHTING, MATERIALS, ETC.

AUGUST 25.

Liverpool Corporation Water Works.—Additional hot- and cold-water systems and alterations to existing systems at Lake Vyrnwy hotel. Water E., 55, Dale-st., Liverpool. Dep. £1 1s.

Merton and Morden U.D.C.—(1) External painting of Morden Park Clubhouse, West Barnes Pumping Station and Raynes Park and Aberconway-rd. conveniences; (2) painting of lamp columns and ventilating shafts; (3) painting of boundary and other fences; (4) painting of greenhouses. E. and S.

Poole T.C.—584 concrete paths to houses. J. V. Yates (L.), Housing and Estates S. Dep. £1 1s.

AUGUST 28.

***Chertsey U.D.C.**—External painting and minor repairs to 74 houses at Green-la., Addison-rd., and School-la., Addlestone. E. and S.

AUGUST 29.

***Kesteven C.C.**—External painting of County Offices, Sleaford. County A.

***Merton and Morden U.D.C.**—Ext. painting 48 requisitioned properties. S.

AUGUST 30.

†**Cambridge T.C.**—Heating, hot water and ventilating systems at Trumpington new junior and infants' school. B.S. Dep. £5 5s.

SEPTEMBER 4.

***Chertsey U.D.C.**—External painting and minor repairs to 58 council houses, Pyrcroft-rd. and Lasswade-rd. W. V. Davies, E. and S.

ROADS, SEWERAGE AND WATER WORKS

AUGUST 22.

†**Wenlock T.C.**—Preparation of site at New-rd., Broseley. Walter B. Bond, F.S.I., Colmore-chbrs., 3, Newhall-st., Birmingham 3. Dep. £2 2s.

Worcester T.C.—Construction of river wall, intake, culvert, waterworks, Barbourne. City E. Dep. £5 5s

AUGUST 25.

Castle Ward R.D.C.—Construction of about 550 lin. yds. of 9-in. dia. sewer, together with manholes, etc. E. G. Lediard, 4, Eldon-sq., Newcastle-on-Tyne. Dep. £2.

Gt. Yarmouth C.B.—Construction of three concrete roads at Gorleston. B.E.

†**Southampton C.B.**—Construction of 418 yds. 21-in. dia. and 914 yds. 18-in. dia. spun-iron pipe sewer, etc. B.E. and S. Dep. £3 3s.

AUGUST 27.

South Kesteven R.D.C.—Supply and laying of 37 miles of spun-iron trunk and distribution water mains, etc., and construction of two booster stations. G. B. Kershaw and Kaufman, 1, Victoria-st., S.W.1. Dep. £5 5s.

AUGUST 28.

Doncaster C.B.—Surfacing of carriageways, paving of footpaths, Sites 3A and 3B, Wheatley Park Estate. Estates S., 15, South-parade, Doncaster. Dep. £3 3s.

AUGUST 29.

Amersham R.D.C.—Sewage disposal works, Ley Hill. E. and S. Dep. £2 2s.

Castleford U.D.C.—Tarmacadamising certain roads. E. and S.

Ellesmere R.D.C.—Laying water supply at 6 parishes and construction of reservoir. A. H. S. Waters, M.I.C.E., 25, Temple-row, Birmingham 2. Dep. £5 5s.

Liverpool C.C.—Roads and sewers, Allerton-rd.-Heath-rd. site. C.A. Dep. £2 2s.

Merton U.D.C.—Paving of footpaths, Tudor-drive. housing site. S.

Wanstead and Woodford T.C.—Private street works at Vicarage-rd., Woodford Bridge. B.E. and S. Dep. £5.

West Kent Main Sewerage Board.—Resurfacing and tarpainting, Sewage Purification Works, Long Reach, Dartford. Secretary.

AUGUST 30.

Dartford R.D.C.—Laying new length of sewer, 700 yds., Darenth. E. and S. Dep. £2 2s.

Sandown-Shanklin U.D.C.—Roads and footpaths, etc., at Medeway site. S. Dep. £2 2s.

Sandown-Shanklin U.D.C.—Laying of approx. 1,200 lin. ft. of 9-in. sewer, etc. S. Dep. £2 2s.

Wolverton (Bucks) U.D.C.—Sewage disposal works. W. H. Radford and Son, Albion-chbrs., King-st., Nottingham. Dep. £3 3s.

SEPTEMBER 1.

Birkenhead C.B.—Completion of footpaths, Mount Estate. B.E. and S. Dep. £2.

East Riding C.C.—Reveting 325 lin. ft. Old Derwent Drain, Hailgate. County S.

Hove B.C.—Providing and laying 1,500 sq. yds. slab paving, etc., Nevill-ave. B.S.

Kidderminster R.D.C.—Laying 2,000 lin. yds. 3-in. asbestos water mains. E. and S. Dep. £2 2s.

Kingston-upon-Thames B.C.—Construction of 1,352 yds. 24-in., 21-in. and 15-in. concrete pumping main, etc. B.E. Dep. £5.

Wayland R.D.C.—(a) Roads, footpaths and surface water drainage, etc., at 4 sites; (b) sewer, manholes, reinforced concrete and/or brick settlement tanks, filters, etc., at 3 sites. Harold Marsh (L.), 14, King-st., King's Lynn. Dep. £2 2s.

West Dean R.D.C.—Sewerage and sewage disposal works, Coleford. Willcox, Raikes and Marshall, 33, Gt. Charles-st., Birmingham 3. Dep. £5 5s. (payable to R.D.C.).

Winchester C.C.—Construction of retaining wall, footway and carriageway, Weeke Pond, Stockbridge-rd. City E. Dep. £2 2s.

SEPTEMBER 4.

Leeds C.C.—Kerbing, flagging and tarmacadamising footpaths, carriageways in various streets. Highways Eng.

SEPTEMBER 5.

Towcester R.D.C.—Roads and sewers, etc., at 2 sites. C., Town Hall. Dep. £3 3s.

Wood Green B.C.—Reconstruction of Buller- and Redvers-rds. B.E. and S. Dep. £2 2s.

SEPTEMBER 6.

Broadstairs and St. Peter's U.D.C.—Laying of 9-in. sewer at Salisbury-ave. E. and S. Dep. £2 2s.

Lancashire C.C.—Installation of new mains and dom. h.w. services, County Mental Hospital, Prestwich. County A. Dep. £2.

Towcester R.D.C.—Laying of approx. 9 miles of 15-in., 12-in. and 9-in. dia. concrete stoneware and cast-iron sewers, etc., together with pumping station, etc. Pick, Everard, Keay and Gimson, 6, Millstone-la., Leicester. Dep. £3 3s.

West Riding C.C.—Widening of Bow Lower Bridge. County E. and S. Dep. £1.

SEPTEMBER 8.

Dun Drainage Commissioners.—New culvert, Whitecross Bridge, Aldwick-le-street, Doncaster. C. E. Farran, M.I.C.E., 1, Prince's-st., Doncaster. Dep. £2 2s.

Liverpool Corp. Water Works.—Laying 7 miles 39-in. steel pipes and ¼ mile 42-in. steel pipes, Vyrnwy Aqueduct. Water Engineer, 55, Dale-st., Liverpool 2. Dep. £5 5s.

Ossett B.C.—Service road, sewers and 3½-in. dia. water main, South-parade housing site. B.S. Dep. £1 1s.

Staffordshire Potteries W.B.—Sinking two 1,100-ft. boreholes, Peckforton Gap, Chester. G. H. Hill and Sons (Manchester), 51, Mosley-st., Manchester 2. Dep. £5 5s.

SEPTEMBER 9.

Boston B.C.—Laying new water mains in borough. W.E. Dep. £2 2s.

SEPTEMBER 10.

Anglesey C.C.—Construction of impounding reservoir. Rofe and Rafferty, 3, Victoria-st., Westminster, S.W.3. Dep. £5 5s.

Eston U.D.C.—Construction of 4,000 lin. yds. soil and surface water sewers; 10,000 sup. yds. reinforced concrete carriageway, Site No. 4, Eston. E. and S. Dep. £2 2s.

SEPTEMBER 15.

***Freebridge Lynn R.D.C.**—Site works at East Winch (26 houses); Pentney (8 houses); North Wootton (14 houses). Harold Marsh (L.), 14, King-st., King's Lynn. Dep. £2 2s.

***Merton and Morden.**—Levelling and construction of 5,500 yds. concrete carriageway, etc. S.

SEPTEMBER 22.

King's Lynn Docks and Railway Company.—Reconstruction of Estuary road. Gen. Manager.

SEPTEMBER 30.

***Feltham U.D.C.**—Making-up of 200 yds. of street. B.E. and S. Dep. £2 2s.

OCTOBER 1.

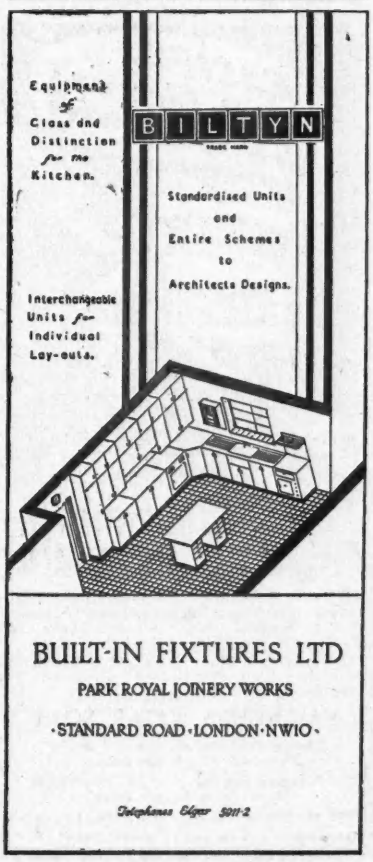
Lambeth B.C.—Supply and laying rolled asphalt paving, various streets. Borough E.

NO DATE.

Staveley U.D.C.—Advance site preparation, Inkershall Green Estate. H. W. Gilman, M.I.Mun.E., Council Eng. Dep. £2 2s.

PUBLIC APPOINTMENTS

Full details of Public Appointments open will be found in the advertisement pages of this and previous issues.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GENERAL BUILDING WORK

(LONDON)

Acton.—REBUILDING.—9 flats at Springfield-ct., Lynton-rd., W.3, proposed. Architect is B. H. L. Barrett, A.I.A.S., Oak View, Barnhill, Pinner, Middx.

Banstead.—HOUSES.—24 perm. houses to be erected at Ballards-green and Duncan-rd., at £29,590; six at Tangier-way, at £7,304; three at Tattenham-way, at £3,683; four at corner of Tattenham-way and Tangier-way, at £4,880; 18 at Picquets-way, at £22,743; five pairs at Sandlands-rd., at £1,298 per house. All for council.

Barking.—FACTORY.—Ferguson, Edwards & Co. (London), Ltd., 15, Hoxton-sq., N.1, have acquired buildings in Abbey-rd. for factory and offices. Architect is Henry Darsa (L.), 59a, Connaught-st., Hyde Park, W.2.

Berkeley-st.—RECONSTRUCTION.—Of old Bath Club as exhibition hall and offices, proposed by Slough Estates, Ltd., Slough, Bucks. Plans by Welch & Lander, 38, Gloucester-pl., W.1.

Bermondsey.—FACTORY.—At St. Thomas-st. Architects, Matthews & Son, 91, Gower-st., Bloomsbury, W.C.1.

Camden Town.—ALTERATIONS.—Proposed by Wellcome Research Foundation, 183, Euston-rd., N.W.1. Plans by the company's staff architect.

City of London.—RENOVATIONS.—Repairs are to be carried out to the Mansion House. The work will have to be completed for sum not exceeding £1,750.

Croydon.—ALTERATIONS.—To No. 7, North End, proposed by W. E. Wilson (Croydon), Ltd. Architects are Hugh Macintosh & Partners, 33, High-st., Croydon.

Ealing.—HOUSES.—Plans by A. Roy Clare (L.), 1, High-st., Pinner, Middx, for rebuilding of 26 houses, Meadville-rd., Holycake-walk, W.5.

Eccleston-sq.—ALTERATIONS.—To Nos. 65-66, costing about £5,000. Architect is F. W. Charity (F.), 14, Howick-pl., S.W.1.

Hammersmith.—ADDITIONS.—At £10,000 to premises, Crisp-rd., W.6, for Riverside Studios, Ltd. Architect is C. Edmund Wilford (A.), Eagle House, Jermyn-st., S.W.1.

Hyde Park.—CLUB.—Alister G. MacDonald (F.), 46, Lincoln's Inn-fields, W.C.2, is architect for adaptation of the Victory (Ex-Services) Association premises at the Connaught Club, Seymour-st., W.2.

Isleworth.—SCHOOL REPAIRS.—Middx. E.C. propose repairs to Isleworth Green Sec. Sch. at £35,000.

Kennington.—FLATS.—72 flats to be erected, St. Agnes-pl., S.E. Architects are Howes & Jackman (FF.), 1, Verulam-bldgs., Grays Inn, W.C.1.

Kingston.—HOSPITAL REINSTATEMENT.—Surrey C.C. are to proceed with reinstatement of Kingston County Hospital and also nurses' home, estimated cost £27,000.

Lee.—REBUILDING.—Garages, etc., 412-416, Lee High-rd., S.E., proposed by Penfold Motors. Architects are Wiltshire & Co., 17, Lee High-st., S.E.13.

Leyton.—FOOTBALL STAND AND DRESSING ACCOMMODATION.—Leyton Orient Football Club propose to erect a new stand and dressing accommodation at their ground in Brisbane-rd.

Leyton.—FACTORY EXTENSION.—Messrs. S. Englender, Ltd., propose to erect a second floor at their utility furniture factory in Norlington-rd.

New Bond-st.—ALTERATIONS.—At No. 147. Architect is F. W. Charity (F.), 14, Howick-pl., S.W.1.

Old Kent-rd.—ALTERATIONS.—Proposed by L.P.T.B. to depot, Old Kent-rd., and Bowles-rd., S.E.1. Architect is Thomas Bilbow (F.), 55, Broadway, Westminster, S.W.1.

Oxford-st.—DEVELOPMENT.—Penberthy's, Ltd., drapers, are considering development of vacant site, Oxford-st. and Duke-st., as extension of stores adjoining.

Poplar.—POWER STATION.—A new generating station is to be erected on the site of the East India Export Dock at a cost of £12,000,000. The site, purchased by the Poplar B.C. from the Port of London Authority, will have an area of 17½ acres, of which 8 acres include the dock proper. The station itself is to be built in the actual dock.

Queen's Gate.—CONVERSION.—Plans by Richard Nickson (F.), 33, Welbeck-st., W.1, for conversion into 13 flats of 47, Queen's Gate and 83, Cornwall-gdns., S.W.7.

Richmond.—WORKSHOP.—Lord Nuffield has given £6,100 to the Star and Garter Home for Disabled ex-Servicemen for up-to-date workshop.

St. Panoras.—FACTORY.—Proposed by McCorquodale & Co., Ltd., printers, at Cardington-st. Architects, Matthews & Son, 91, Gower-st., Bloomsbury, W.C.1.

St. Pancras.—OFFICES.—To be erected on roof of Town Hall for Building Advisory Committee. Cost, £2,900.

Southwark.—EXTENSION.—Of factory premises, costing about £20,000, at Ashmead Works, Disney-st., S.E.1, for Solidol Chemicals, Ltd. Plans by Bernard H. Dale & Partners, Haddon Hall, Ogle-st., Southampton.

Surbiton.—CHURCH.—Surbiton Methodist Church propose new church, Bridge-rd. Plans

by George Baines & Son (FF.), 121, Victoria-st., S.W.1.

Surbiton.—SCHOOL EXTENSIONS.—Surrey C.C. to purchase land, Alpha-rd., for extensions to Surbiton-hill Prim. Sch.

Thornton Heath.—HOUSES.—Plans by P. W. Dawnay & Carpenter, 131, Victoria-st., S.W.1, for rebuilding 6 houses in Marden-cres., S.W.

Tottenham.—FACTORY EXTENSION.—Maynards, Ltd., propose factory extensions, Vale-rd.

Twickenham.—COMMUNITY CENTRES.—Six community centres have been tentatively suggested for the borough in a report issued by the Middx C.C. The B.E. is to inquire further into the proposals.

Twickenham.—FLATS.—B.C. to erect 42 flats on the site of Carpenters' Almshouses, Hampton-rd.

Twickenham.—STUDIO EXTENSION.—Alliance Films, Ltd., Riverside Studios, Crisp-rd., W.6, propose new sound stage, dressing-rooms, workshops, etc., St. Margaret's Studios, at £250,000. Plans by C. Edmund Wilford (A.), Eagle House, Jermyn-st., S.W.1.

Upper Norwood.—FLATS.—Plans by A. J. Fowles (F.), 7, Burlescoombe-rd., Thorpe Bay, for rebuilding flats at 35-76 and 106-107, The Woodlands, Beulah-hill, S.E., for Langford Property Co., Ltd., 14, Cromwell-pl., S. Kensington, S.W.

Walthamstow.—TOWN HALL EXTENSION.—It has been recommended to the council that a building similar to existing Assembly Hall be erected on the west side of the Town Hall as an extension of the latter.

Walworth.—FLATS.—Plans by Gordon Jeeves (F.), 61, Catherine-pl., S.W.1, for flats at Flint-st., S.E. Quantity surveyors are Rider, Hunt & Partners, 181, Queen Victoria-st., E.C.4.

Whitfield-st.—PREMISES.—George Humphries & Co., Ltd., propose six-storey laboratories and offices at Nos. 79-85, to cost about £120,000. Plans by C. Howard Crane, 7, Buckingham-gate, S.W.1.

Woolwich.—FLATS.—L.C.C. to build over 380 dwellings in Ogilby-st. and at Shooters Hill.

(PROVINCIAL)

Balsall Common.—Warwicks E.C. propose Secondary school.

Bexley.—E.C. approved erection of kitchen and dining-room for 600 and 2 classrooms, St. Stephen's R.C. School.

Bournemouth.—The East Cliff Housing Assn. propose 74 flats, Manor-rd. Architects are A. J. Seal & Partners, Palace Court-chbrs., Hinton-rd., Bournemouth.

Brandon.—Warwicks E.C. acquired 20-acre site for Secondary school.

Brighouse.—T.C. approved extensions to workshop and erection of sub-station, Cromwell Quarries, for S. Marshall & Sons, Ltd. Extensions to laundry, Crowtrees-la., Crowtrees Laundry, Ltd. Offices, store at works, Elland-rd., Elliott's Sand & Gravel Co., Ltd. Extensions, Cornaro Works, Hove Edge, W. Ganson & Co., Ltd., Lister Brook & Co., Ltd., Owler Ings-rd., to erect houses on Stoney-la. est., for T.C. T.C. propose 20 aluminium houses, Norwood Green.

Canterbury.—C.C. to proceed with erection of public abattoir.

Chatham.—B.C. to build three blocks of shops on Wayfield Housing Estate, at £21,259. Also £10,000 community centre.

Deal.—B.S. preparing plans for reinstating pier.

Dewsbury.—T.C. approved works extension, Pepperoyd-st., Tower Table Water Co. Rebuilding works, Westfield Mills, W. Crabtree & Sons, Ltd.

Doncaster.—Hill & Cunningham, Ltd., Golden Dawn Boot Works, Leicester, propose new factory, Staveley-st., Edlington.

Durham.—C.C. to build two low-grade blocks at School, Aycliffe Mental Colony, at £34,000. C. R. Clayton, C.A., Shire Hall, Durham.

Eastbourne.—Extensions to Imperial Hotel, Devonshire-pl. Architect is H. Hubbard Ford (A.), 24, Cornfield-terr., Eastbourne, and quantity surveyor, C. F. Baker, 51, Gildredge-rd., Eastbourne.

Edinburgh.—Re extension, costing £2,500,000, of Portobello Generating Station, the T.C. has made following appointments: Consulting Engineer, Kennedy & Donkin, 12, Caxton-st., London, S.W.1; steelwork consultant, Ewart S. Andrews, M.Sc., Bank-chbrs., High Holborn, W.C.1; reinforced concrete work, Kinnear & Gordon, 56, Melville-st., Edinburgh; buildings, A. G. Forgie (A.), City-chbrs., Edinburgh.

Elstree.—R.D.C. has allocated site on Cowley Hill Estate for Methodist Church.

Faversham.—East Kent Packers Co. propose factory.

Guildford.—T.C. approved in principle new police headquarters, Burchatt's Farm site.

Halesowen.—Midland Housing Corporation, Ltd., Hady Hill, propose 50 houses, Hasbury Farm estate.

Hastings.—Plans prepared for conversion of Abbotsford, St. Helen's Park, into a convalescent nome. Architects are Oliver Law & Partners, 35, Ebury-st., Pimlico, S.W.1.

Hemel Hempstead.—West Herts Hospital have under consideration plans for new outpatients' department costing £30,000. The architect is P. W. Prevett (L.), Rowans, Bovingdon, Hemel Hempstead.

Henley-on-Thames.—M.O.W. granted licence to M. Makower & Co., Ltd., textiles, Northfield House, Henley-on-Thames, to convert barns into warehouses, Wootton Manor Farm. Est. cost, £14,800.

Hook.—Surrey C.C. to purchase site, Mansfield-rd., for Primary School.

Jarrow.—Extensions to factory of Morgan Crucibles, Ltd., Jarrow Trading Estate. Architects: Spence & Price, St. Mary's-pl., Newcastle.

Lancaster.—Lancs E.C. propose Moorside Primary school, Scotforth. Lansil, Ltd., propose large extensions, Caton-rd.

Liverpool.—E.C. propose new Domestic Science College on site of Dowesfield and grounds. Also school kitchen, Fountain-rd. and Wyatt-st.; classroom accommodation, Fletcher-st., Loval-st. and Lathom-st. Rev. Fr. Dawson, St. Peter's, Seel-st., propose Catholic Primary school.

Lowestoft.—Plans by Wright & Mason, 10b, Castle-meadow, Norwich, for flats at Kirkby Park-rd.

Macclesfield.—Halles, Ltd. (Gowns), Park Green, propose day nursery, Park-st.

Manchester.—T.C. approved reconstruction of office block, 15, Cross-st., Newmarket and Black Pool Fold, Manchester Commercial Buildings Co., Ltd. Houses, Princess-rd. and The Drive, West Didsbury, J. Davies. Alterations, 22, Dickinson-st., Paramount Film Services. Alterations, Simpson's Hotel, Withington-rd. and May-rd., Whalley Range, D. P. Robinson. Additions, 436, Oldham-rd., Plastics (Manchester), Ltd., 11, Whitworth-st. Two factories, Eastern Industrial Area, Wythenshawe. Board of Management of Royal Infirmary, Oxford-rd., propose research laboratories, at £70,000. School for sub-normal children, Wythenshawe, and school dental clinic in grounds of Britannia House, Whalley Range, for E.C. Rev. Fr. Lyon, St. Peter's, Hall-rd., Wythenshawe, proposes Catholic school, Baguley Hall Estate, Wythenshawe.

Middlesex.—C.C. has authorised, subject to M. of E. approval, erection of kitchen and dining-room for 736 meals at Glebe-ave. Primary School, Kenton, at £10,099; kitchen and dining-room for 700 meals at Fryent Primary School, Kingsbury, at £10,144, and kitchen and dining-room for 736 meals at Kneller School, Twickenham, at £10,840.

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Newcastle (Staffs).—T.C. approved concrete tile works, Chesterton, Exors of E. Hodgkinson, A. Cotton, Son & Richards, architects, Piccadilly, Tunstall. Alterations, Knutton-rd., Trent Foundries, Ltd., A. Cotton, Son & Richards, architects. Additions, Star Inn, Ironmarket, Ind Coope & Allsopp, Ltd., Burton-on-Trent. Extensions, Holditch Colliery, N.C.B., North Staffs. Egg Producers, Ltd., propose grading station, London-rd., Chesterton. Dairy Made Ices, Ltd., propose factory, London-rd., Chesterton. Hessan & Co. propose factory, High-st., Knutton. H. Hewitt propose works, Lower Milehouse-la. Durose Transport, Ltd., propose depot, London-rd. Staffs E.C. propose County Primary sch., Bradwell Hall Farm Estate. Lichfield Diocesan Trust propose church, Bradwell Estate.

Newcastle-on-Tyne.—The Northern General Transport Co., Ltd., Queen-st., Bensham, alterations to offices at Worswick-st. bus station; plans by own architects. Additions scheme, including research centre, planned in City-rd., by Thomas Hedley & Co., Ltd., Collingwood-st., Newcastle; the firm has prepared its own plans. Robert Burke, 10, Lambton-rd., Newcastle, is architect for converting Jesmond Towers into Secondary school for Convent of La Sagesse. Hetherington & Wilson, 52, Westgate-rd., Newcastle, are architects for offices at Leazee Brewery, for W. B. Reid & Co., Ltd. Marshall & Tweedy, Grainger House, Blackett-st., Newcastle, prepared plans for sanitary accommodation for Messrs. G. S. Buist, Ltd. Newcombe & Newcombe, 23, Eldon-sq., Newcastle, have prepared plans for alterations in Northumberland-rd., for Brady Martin, Ltd. Newcastle Breweries, Ltd., Newcastle, to provide additional sanitary accommodation at "Douglas Hotel"; plans by F. T. Blumberg, staff architect. City Council proposes dining accommodation at nurses' home, Westgate-rd., to plans by C.A., 18, Cloth-market, Newcastle. City Housing Committee to erect eight houses and shops, Wrotham-pl., to plans by C.A.

Newport (Mon.).—Tilneys Cinemas, Ltd., propose cinema, dance hall, car park and business premises, Malpas-rd. Architect is J. B. Wride (A.), 7, Pembroke-terr., Cardiff.

Northampton.—R.D.C. propose 100 permanent concrete houses, Nether Heyford.

Otley.—U.D.C. approved additions to The Tannery, Leeds-rd., Lawson & Sons, Ltd. Alterations, Summer Cross Hotel, Hammond's Bradford Brewery Co., Ltd.

Oxfordshire.—Berks, Bucks and Oxon Joint Sanatorium Board are considering enlarging Peppard Sanatorium at £500,000. The architects are Adams, Holden & Pearson (FF.), University of London, W.C.1.

Porth.—Wales and Monmouthshire Industrial Estates, Ltd., Pontypridd, propose factory for Trefano, Ltd., Cymmer-rd., Porth. The architects are Sir Alexander Gibb & Partners, Queen Anne's Lodge, Queen Anne's-gate, S.W.1.

Portsmouth.—Leethams (Twilfit), Ltd., Highland-rd., propose to rebuild their factory. Architects are A. E. Cogswell & Sons, Prudential-bldgs., Portsmouth.

Reading.—Hansen's Laboratory, Ltd., Astor House, Aldwych, W.C.2, propose new laboratories, etc., Basingstoke-rd., at £25,000. Plans by Sainsbury & Chamberlain, 14, Cross-st., Reading.

Rutherglen.—E. R. Cole, Ltd., Prittlewell, Southend-on-Sea, to double factory space, by arrangement with Scottish Industrial Estates, Ltd., 3, Woodside-pl., Charing Cross, Glasgow. Architects are Wilson, Honeyman & Jack, 92, Bath-st., Glasgow.

Seaton Valley.—U.D.C. to build 120 aluminium houses, Shiremoor. Plans by the Surveyor.

Shifnal.—R.D.C. propose 34 houses, Church-rd.; 40 houses, Curriers-la.; 26 Airey houses, Greenfields site.

Southowram.—West Riding E.C. propose Infants' and Junior school.

South Shields.—Howard Hill, 10, Winchester-st., has prepared plans, which have been approved, for two Primary schools, Marsden-rd. and Harton Downhill, for E.C.

South Shields.—Plans approved for canteen at Riverside-dr., for J. Shaffer, Ltd. Architects are P. L. Browne, Son & Harding, Pearl-bldgs., Northumberland-st., Newcastle. It is expected that work will be started shortly on a factory on the Bede Estate for Harton Dyeworks, Ltd. The architects are Page, Son & Hill, 75, King-st.

Stretford.—T.C. propose houses on 41 acres, Moss Park-la. and Urmston-la.

Strood.—M. of H. approved proposals by W. Brice & Sons, Mockbeggar Farm, Higham, to build 8 cottages.

Surrey.—M. of H. approved completion of war damage repairs, St. Helier Hospital, at £50,000, and extensions to Milford Sanatorium, at £71,835, for C.C.

Surrey.—C.C. approved erection of 10 pairs of cottages, Brookwood Mental Hospital, at £44,500.

Torquay.—Torquay & District Co-operative Society, Ltd., 77-81, Union-st., Torquay, propose flats and shops, Cadewell-la. and Banbury Park. Architects, Powell & Powell, 3, Lower-terr., Torquay.

Usworth.—Conversion of an old school to clothing factory. Architects: Hetherington & Wilson, County-chbrs., Westgate-rd., Newcastle.

Walsall.—T.C. approved factory, Croxstalls-rd., Bloxwich, Beacon Tools, Ltd.; extensions to works, S. F. Profitt & Co., Ltd.; additions to factory, Littleton-st., T. Homer & Sons; extensions to works, Hospital-rd., H. D. Jackson & Co., Ltd.; additions to works, Natherton-la., Leamore, Walsall Glue Co.; factory, Hatherton-la., Leamore, E. V. Deeley & Co.; extensions to works, Beacon-st., Sydenham & McOustra.

Walsall.—J. A. Crabtree & Co., Ltd., propose factory, Lincoln-rd., at £120,000. Plans by Sanders & Profitt, 145, Lichfield-st., Walsall.

Warrington. — T.C. approved workshop, Napier-st., Bennett-st., Thos. Locker & Co., Ltd.; loco shed at works, Battersby-st., Rylands & Bros., Ltd.; additional floor at works, Norman-st., Alliance Box Co., Ltd.

Warwicks.—E.C. propose to acquire site at Balsall Common for mixed Secondary school.

Watford.—Prove Bros., Ltd., Rickmansworth-rd., considering factory extension. Architects are Ley, Colbeck & Partners, Palmerston House, Bishopsgate, E.C.2.

Wolverhampton.—E.C. propose conversion of Tor Lodge, Tettenhall Wood, into hostel for students of National Foundry College.

Worcester.—Worcestershire C.C. propose residential school for sub-normal boys, Rhydd Court, Hanley Castle.

Worthing.—Hall & Co., Ltd., Cherry Orchard-rd., Croydon, propose rebuilding transport depot, Park-rd. Plans by S. C. Phillips & Kirk, 32, Chapel-rd., Worthing.

TENDERS

* Denotes *accepted*.
† Denotes *provisionally accepted*
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modification*.
¶ Denotes *accepted by H.M. Government departments*.

Ballyclare.—30 houses, Rashee and Ballyeaston-rds., for U.D.C.: *James Logan & Sons, Hillhead-rd., Ballyclare, £47,053 (subject to Ministry approval).

Batley.—10 houses, Smithies Moor-la., for T.C. T. Mossop, B.S.: *Batley & District Federation of Building Employers, 3, Luke-st., Batley, Yorks.

Bexley.—Houses, for the T.C.: 16, at Bullalley, *Welling-Ashleigh Estates, Ltd., Carlton-rd., Welling, £17,984; 8, Henfield-close, Bexley Heath, *P. Hayward & Son, 1, Broadway, Bexley Heath, £11,160 (approved by M. of H.).

Bideford.—Extensions to Bideford Hospital, for the Board of Management: *Griggs & Sons, Ltd., 12, Grimstone-terr, Plymouth, £15,756.

Brierley Hill.—72 steel houses, for U.D.C. J. R. Moores (A.), Architect, Council Offices: *British Steel Construction (Birmingham), Ltd., Smith-rd., Wednesbury, Staffs, £174,968.

Brighouse.—Works, for T.C. H. A. Sneezum, B.E., Municipal Offices, Commercial-st: 50 Spooner houses, Cain-la. housing est., *Spooners, Ltd., 152, Durham-st., Hull; reconstruction of sewer, Huddersfield-rd., *Hadsphaltic Construction Co., Ltd., Ibex House, Minories, London, E.C.3, £22,127.

Burnley.—250 Easiform houses, Brunshaw Est., for T.C. E. S. Stackhouse, B.E.: *John Laing & Son, Ltd., Mill Hill, London, N.W.7.

Carlisle.—16 houses, Scalegate-rd., Upperby-rd. and Lamb-st., for T.C. P. Dalton (A.), C.E. and A.: *T. Irwin & Sons, Ltd., Warwick-rd., Carlisle, £18,026.

Caterham and Warlingham.—Two blocks of four flats and three pairs of houses with roads and sewers at Coulsdon-rd., for U.D.C.: †G. W. Hitchcox, 57, High-st., Caterham, £17,957 (subject to M.H. approval).

Chatham.—Repairs to Sun Pier, for T.C.: *George M. Carter (Erectors), Ltd., 7, Victoria-st., S.W.1, £9,300.

Chipping Norton.—6 houses at Churchill, 6 at Chadlington, for R.D.C.: *Warne Bros., £17,324 (subject to M. of H. approval).

Colchester.—10 houses, Hubert-rd., Glen-ave. Est., for T.C.: *Fred Taylor (Colchester), Ltd., 115, North Station-rd., Colchester, £12,376.

Croydon.—Kitchen and dining-hall at Selhurst Grammar School for Girls, The Crescent, for C.B.: *John A. Innes, Camberwell, £5,979.

Dagenham.—Houses for T.C.: 12 at Avenuegds. estate: *R. W. King, £15,350; 16 at Thornton's Farm estate: *Direct Labour, £18,377 (subject to M.H. approval).

Darlington.—8 police houses, Harrogate Hill, for Durham C.C.: *R. W. Bell & Co. (Builders), Ltd., 4, Church-rd., Stockton-on-Tees.

Dover.—Alterations to warehouse buildings, Market-la., for T.C.: Direct labour, £10,800.

Dukinfield.—24 houses at Victoria Farm site, for T.C. Cruickshank & Seward (F.), 16, Princess-st., Manchester 1: *Frank Blurton, Ltd., Chatsworth-rd., Hazel-gr., Stockport (subject to M.H. approval).

Ealing.—Shops and houses in Eastmead-ave. to be rebuilt. Architects are Morris & Morrison, 123-124, Newgate-st., E.C.1: *J. H. Martin, 11, Woodleigh-ct., Beechwood-ave., Greenford, Middx.

Gateshead.—Bus station, Team Valley trading estate. Architect, Mr. Main, staff architect, trading estate: *Gordon Durham, Ltd., Beldenla., East Belden, Co. Durham.

Glasgow.—Factory, Larkhall, for Scottish Industrial Estates, Ltd., and S. Simpson, Ltd., 92, Stoke Newington-rd., London, N.16. Wylie, Shanks & Wylie, 214, West Regent-st., Glasgow, architects. Percy V. Burnett (F.), 12, Bloomsbury-sq., W.C.1, consulting architects: *James Ritchie (Builders), Ltd., Greenholm, Glasgow-rd., Uddingston, Lanark.

Gloucester.—18 houses, Newnham, for R.D.C.: *Ashmore Contractors, Ltd., 124, Victoria-st., S.W.1.

Gosforth (Northumberland).—24 flats, Williamst., for U.D.C. Architect, Austin Child, Trinity-bldgs., New Bridge-st., Newcastle-on-Tyne: *William Jackson, 5, Audley-rd., Gosforth (subject to M.H. approval).

Hambledon.—Conversion of "Whinfold," Busbridge, nr. Godalming, into 8 flats, for R.D.C.: *Kear & Farnfield, Ltd., Cranleigh.

Harrow.—122 flats and 56 houses, Edgware Golf Course site, for U.D.C.: *A. W. Curton, Ltd., 71, Edgwarebury-la., Edgware, £249,352 (subject to M. of H. approval).

Hartlepool.—Factory additions, for Siemen Brothers & Co. Architects, Newrick & Blackbell, 24, John-st., Sunderland: Steelwork, *Palmers Co., Ltd., Hebburn; builders, *H. E. Pitt, Ltd., Leopold-st., Sunderland.

Hartley Wintney.—10 houses at Mattingley, for R.D.C. P. Coleridge, Mead Meadow, Chobham, Surrey, architect. Quantities by L. Francis & Sons, Vernon House, Bloomsbury-sq., London, W.C.1: *J. A. Manser & Son, Sherfield-on-Loddon, £13,962 (subject to M.H. approval).

Hemsworth.—12 houses, Great Houghton, for R.D.C. S. Price, S., Council Offices: *T. Potter & Son, Old Mill-la., Barnsley, £15,180.

Ilkeston.—29 houses, Cotmanhay site, for T.C. A. O. Marshall, B.S.: *Sherwin Building & Contracting Co., Ltd., £37,148.

Isle of Man.—14 houses with site works, etc., at Croit-e-Caley, Rushen. T. H. Kennough, F.S.I., F.I.A.A. & S., Victory House, Prospect Hill, Douglas: *F. G. Moore, Athol-st., Port St. Mary.

Jarrow.—Factory, Bede Est., for British Crêpe Makers & Paper Products, Ltd. Architects, Newrick & Blackbell, 24, John-st., Sunderland: Steelwork, *J. W. Ellis & Co., Newcastle-on-Tyne; general contractors, *Middleton & Co., Darlington and Blackpool. Cost, £63,000.

Kingston.—Rebuilding shops and flats, 1-4, The Parade, Cambridge-rd. Stanley P. Anderson (F.), Kings Stone House, High-st., Kingston-on-Thames: *Lewington & Thorogood, Princes-ave., Tolworth, Surrey.

¶London (Air Ministry).—Following are new contracts to the value of £500 or over for the week ended August 9: General maintenance work, G. E. Wallis and Sons, Ltd., London, W.C.2; general maintenance work, Beric, Ltd., Epsom, Surrey; general maintenance work, Bosworth and Wakeford, Ltd., Daventry, Northants; general maintenance work, Airwork, Ltd., Hounslow; building work, Jas. Miskimmin and Sons, Ltd., Belfast; building work, Brown Fraser and Co., Ltd., North Berwick, E. Lothian; building work, Scottish Aviation, Ltd., Prestwick Airport, Ayrshire; heating and hot water installation, Benham and Sons, Ltd., London, W.1; heating and hot water installation, Fretwell Heating Co., Ltd., Leatherhead, Surrey; dismantling and re-erection of timber towers, J. Gerrard and Sons, Ltd., Swinton, Manchester; painting work, W. J. Brooker, Ltd., London, S.E.1; lagging of pipes etc., F. Leroy and Co. (Manchester), Ltd., Manchester 7.

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¶London (M.O.W.).—Contracts placed by M.O.W. for the week ending August 7:—*London*: Buckingham Palace, Decorations, Campbell & Smith, 25, Newman-st., W.1. *Bedfordshire*: West Park, Silsoe, Workshop, garage, etc., Ruberoid, Ltd., 1-19, New Oxford-st., W.C.1; Stewartby C. School, Kitchen & dining-room, Haywin, Ltd., Oakley House Est., Beds. *Berkshire*: Newbury Boys' & Girls' school, Temp. sch. classrooms, F. Grover, Spencer's Wood, nr. Reading. *Cheshire*: Hyde B.C.2, Aluminium houses, Dean & Whipp, Clarendon-rd., Hyde, Ches; Eastway C. sch., Wallasey, Kitchen & dining-room, Moore & Mason, 259, Old Chesterrd., Tranmere, Birkenhead. *Cumberland*: St. Patrick R.C. sch., Cleator Moor, Additional classrooms, Crow & Watson, 66, High-st., Cleator Moor, Cumberland. *Devon*: Chulmleigh Mod. sch., Temporary school bldgs., M. T. Sleeman & Son, Longbrook-ter., Exeter. *Durham*: Prestonon-Tees C. sch., Eaglescliffe, Additional classrooms, Coultas & Shaw, 33, Stephenson-st., Preston-on-Tees, Durham. *Essex*: Trinity-rd. Prim. sch., Chelmsford. Kitchen & dining-room, Edward W. Smith, 1-3, Western-rd., Romford; St. Margaret Hospital, Epping, Conversion to pathological lab., J. Whiffen & Son, Granville Works, Epping; Gray's C. Tech. sch., Thurrock, Kitchen and diningroom, Edward W. Smith, 1-3, Western-av., Romford. *Fifeshire*: King's-rd. sch., Rossyth, Temp. sch. bldgs., Richard Dunlop, Dunmore, Halbeathrd., Dunfermline. *Gloucestershire*: Longlevens Sec. sch., Temp. sch. bldgs., W. J. B. Halls, Ltd., Barton Gates, Glouc. *Glamorganshire*: Pontardawe R.D.C. 2, Temp. houses, John Morgan, Ltd., 14, Cathedral-rd., Cardiff. Herbert-rd. school, Neath, Temp. sch. bldgs., J. Harris, 60, Roger-st., Tobseth, Swansea. *Hants*: Southampton C.B. 22, Temp. houses, A. W. Hinton, Weatheral Beacon-cres., Southampton. *Lanarkshire*: Carluke Prim. sch., Temp. sch. bldgs., A. Shirlaw, 16, Market-rd., Carluke. *Lancashire*: Lytham St. Annes B.C. 111, 10 Aluminium houses, J. Heap & Sons, St. Andrew's-rd., St. Annes-on-Sea; Gregson-st., Liverpool, Eastern District. Temp. post office and garage, Fredk. Clark & Son, 191, Heyworth-st., Liverpool 5; St. Patrick's R.C. sch., Liverpool, Hutted accom., Tallis Bros., 182, South-st., Liverpool 8; Walton, Hornby-pl., Cottages, Tysm's, Ltd., Dryden-st., Liverpool. *Lincolnshire*: C. of E. sch., North Somercoats, Temp. sch. bldgs., J. D. Walsham, 117, Patrick-st., Grimsby. *Middlesex*: Bushey Park, Teddington, Demolish camp bldgs., Willment Bros., 462, London-rd., Isleworth; Stanmore, Remove brick hardcore, J. W. Bates, New House, New-rd., Harlington. *Midlothian*: Edinburgh, Temp. Seco houses, John Crow, 37, Haddington-pl., Edinburgh. *Notts*: C. of E. sch., The Green, Ruddington, Temp. sch. bldgs., A. H. Taylor, 151, Attenborough-la., Attenborough. *Roxburghshire*: Kelso, Temp. Tarran houses, Andrew Bulman, 14, Coal-market, Kelso. *Shropshire*: Shrewsbury M.B., Temp. houses, Concrete Bros., Mill House, Hanwood, Salop. *Staffordshire*: Cannock R.D.C. (one), Temp. houses, Geo. Linnecor & Co., 154, Newtown-row, Birmingham 6; Cannock, U.D.C.3, Temp. houses, John McLean, Coven, Wolverhampton; Stoke-on-Trent 8, Temp. houses, D. N. Tate & Co., Raglan-st., Wolverhampton. *Stirlingshire*: Redding School, Temp. sch. bldgs., Wm. Sprout & Co., Inverallan-rd., Bridge-of-Allan, Stirlingshire. *Suffolk*: Bury St. Edmunds, Temp. sorting office & garage, George A. Kenney, Army Works, Burrell-rd., Ipswich. *Surrey*: Kenyngton sch., Beechwood-av., Sunbury, Temp. sch. bldgs., G. T. Crouch, Ltd., 3-5, Thames-st., Kingston-on-Thames. *Sussex*: Bexhill B.C., Temp. Seco houses, Power Lines Construct Co., 103, Sedlescombe-rd. North, St. Leonard's-on-Sea. *Wiltshire*: Spring Quarry, Hawthorn, Foundations for surface oil storage tanks, Smith & Lacey, Station-rd., Corsham, Wilts. *Yorkshire*: Pocklington R.D.C. 2, 15 Aluminium houses, W. & J. Glossop, Annisfield House, Hipperholme, Halifax; Marsh-rd. Coun. sch., Middlesbrough, Additional classrooms, Coultas & Shaw, 33, Stephenson-st., Thornaby-on-Tees.

¶London (War Dept.).—Works contracts placed by W.D. for the week ended August 2:—*Cumberland*: Hutting work, Brown, Fraser & Co., Ltd., North Berwick. *Lancashire*: Hutting work, Nicholson & Wright, Ltd., Lancaster. *Cheshire*: Building work, Sparke & Stephens, Ltd., Timperley. *Shropshire*: Roadwork, Apex Asphaltera, Ltd., Stockport. *Oxfordshire*: Painting work, Fields, Ltd., Reading. *Hampshire*: Roadwork, Thames Tar Products & Contractors, Ltd., West Croydon.

Loughborough.—10 houses, Hathern, for T.C.: *J. H. Bosomworth & Son, Loughborough (6); *C. W. Dennis, Hathern (4).

Market Drayton.—Painting work on 146 houses, for R.D.C. H. Wainwright, S.: 103

houses—*W. H. Crowe; 43 houses—*E. M. Minshall (both of Market Drayton).

Marshland.—60 house for R.D.C. S. G. Bailey (L.), Council Offices: *F. C. Adkins, Pope's-la., Terrington St. Clement (30); *Parsons Bros. and Jennings, Ltd., 314, High-rd., Tottenham, N.15 (30).

Matlock.—10 houses, Bonsall site, for U.D.C. N. Chamberlain, S., Town Hall: *A. Lee, Valley View, Whatstandwell, Wirksworth, nr. Matlock.

Middlesex.—Six staff cottages, Harefield County Hospital, for C.C.: *McLaren Bros., Ruislip, £10,230. Six staff cottages, Clare Hall County Hospital, for C.C.: *H. E. Winskell & Son, Ltd., Barnet, £11,049.

Newburn.—Factory, for manufacturing firm. Architects, S. Milburn & Partners, Y.M.C.A. Buildings, Fawcett-st., Sunderland: *W. Mess & Co., St. Mary's-pl., Newcastle.

Newcastle (Staffs).—External decoration on 643 corporation houses and 45 bungalows, Hassam-parade and Orme-rd. areas, for T.C. C. B. Parkes (L.), Architect, Bournville Est. Office, King's Norton, Birmingham 30: *A. Aidney, 648, London-rd., Oakhill, Stoke-on-Trent, £4,455.

Newcastle-on-Tyne.—14 houses, Jenifer-gr. Architects, Marshall & Tweedy, Grainger House, Blackett-st., Newcastle: *Wilkinson Bros., Pillars-yard, High-st., Gateshead.

Newcastle-on-Tyne.—2 additional bays at the Fossway, for C. A. Parsons & Co., Ltd., Heaton, Newcastle. Plans by the firm's own architects: *Stephen Easten, Ltd., Westgate-rd., Newcastle-on-Tyne, £80,000.

Newton Rigg.—Reconstruction of Cumberland and Westmorland Farm Sch.: *John Laing & Son, Dalston-rd., Carlisle, £25,684.

Nottingham.—Rebuilding printing works, Station-st., for Boots Pure Drug Co., Ltd. Percy J. Bartlett (F.), staff architect, Station-st., Nottingham; Building, *Gilbert Ash, Ltd., 2, Stanhope-gate, W.1. Reinforced concrete works, *Trussed Concrete Steel Co., Ltd., 6, Collingham-gdns., S. Kensington, S.W. (Total cost, £750,000.)

Orpington.—100 houses, Windsor-drive, for U.D.C.: *David Jones, Orpington, 26; *Glassup & Co., Ltd., Orpington, 22; *W. Babbs, Ltd., St. Mary Cray, 12; *F. L. Smithers, Farnborough, 12; *Loxley Buildings, Ltd., Orpington, 10; *C. D. Boswell, Chelsfield, 10; *Wilkinson's, Orpington, 8. Total cost, £124,328 (approved by M. of H.).

Rochdale.—72 flats, for T.C. S. H. Morgan, B.S.: *Unit Construction Co., Ltd., Knutsford, Cheshire (provisionally).

Sandwich.—59 houses, St. Bart's-ave., for T.C.: *Grummants Bros., 100, Grange-rd., Ramsgate, £88,560 (subject to M. of H. approval).

Seaham Harbour.—Additional classrooms, sen. sch.: *W. Wigham & Son, Sunderland.

Sheffield.—Collection and dismantling Anderson air raid shelters on various sites (approx. 30,000), for T.C. W. George Davies (F.), C.A.: *West of Scotland Excavations, Ltd., Wakefield, Yorks: and *P. J. Buckley, Staines, Middx.

Smethwick.—Reconstruction of foundry, etc., Brewery-st., for Samuel Smith & Sons, Ltd. J. Alfred Harper & Sons, architects, 63, Temple row, Birmingham: *W. J. Whittall & Sons, Ltd., Lancaster-st., Birmingham 14.

South Shields.—Contract for conversion of old chapel into offices, for Wright's Biscuit Co. Architects, S. Milburn & Partners, Y.M.C.A. Buildings, Fawcett-st., Sunderland: *D. & J. Ranken, Stockton-rd., Sunderland.

Thornaby (Yorks).—Additions to factory, for W. & M. Pumphrey, Ltd., sugar refiners. Architects, Kitching & Co., 21, Albert-rd., Middlesbrough: *Norman Thompson, Stonehouse-st., Middlesbrough. Cost, £7,500.

Tudhoe.—Additional classrooms, R.C. Sch.: *T. Manners & Son, Bishop Auckland.

Walker.—Additional classrooms at R.C. Sch.: *J. & W. Lowry, Corporation-st., Newcastle.

Warrington.—Demolition of shelters, etc., for T.C. J. Y. Hughes, B.S.: *C. Earl, Middlewich, Cheshire; and *E. C. Barker, Warrington.

West Auckland.—Factory, for the North-Eastern Trading Estates: *G. Dougill & Sons, Chesnut-st., Darlington.

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